THE EFFECT OF LIQUIDITY RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN TANZANIA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION IN FINANCE

DEPARTMENT OF ACCOUNTING AND FINANCE

THE OPEN UNIVERSITY OF TANZANIA

2020

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled: **The Effect of Liquidity Risk Management on Financial Performance of Commercial Banks in Tanzania"** in partial fulfillment of the requirements for the degree of Master of Business Administration in Finance of the Open University of Tanzania.

……..

Dr. Raphael Gwahula

(Supervisor)

……..…

Date

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DECLARATION

I, **Chiito Charles Msuku**, do hereby declare that this dissertation is my own original work and that it has not and will not be presented to any University or institution for a similar or any other degree award.

…….

Chiito Charles Msuku

……..

Date

DEDICATION

This Dissertation is specifically dedicated to my family.

My mother, Mrs. Theodora C. Msuku, who was always supporting me to undertake the course, telling me that I will make it. Thank you so much, your prayers and words of encouragement meant a lot to me mom!

My husband Mr. Henry B. Kessy, my children Reaiah, Estherrian and Reynolds; I'm really grateful for your patience, you allowed me to devote my time for all these years during my studies in making sure that I achieve my carrier goals; appreciated. I'm so proud having you in my life.

Last but not least, I am heartedly appreciating my siblings for their vigorous encouragement and support given to me all these long; they were there whenever I needed their help.

They are all so precious to me!

ACKNOWLEDGEMENT

I am greatly indebted to a number of people for their support and indefatigable guidance throughout this work. Just few are mentioned here, in appreciation.

I must first thank the Almighty God for sustaining me physically, spiritually and materially during and after my study. He has indeed granted me this level of academic excellence. By His grace, I accomplished my study.

I am indebted to my supervisor for his infinite wisdom, academic prowess, invaluable expertise, compassionate guidance and support throughout the study. His constructive remarks and comments on each phase of the research work have contributed to the fruitful outcomes of this research. His encouraging attitudes and remarks have undoubtedly motivated me to accomplish this study. I heartedly appreciate His relentless hard work.

Lastly, my sincere thanks are extended to Commercial Bank of Africa staffs, and my MBA Finance cohort mates at the Open University of Tanzania for their immeasurable suggestions and ideas at the time I needed them most. Nevertheless, I remain responsible for the shortcomings and errors of this work.

ABSTRACT

The study assessed the effect of liquidity risk management on financial performance of commercial banks in Tanzania. The study was guided by three research objectives namely: to identify the factors influencing liquidity risks in the commercial banks, to establish relationship between liquidity risk and financial performance, as well as to examine the approaches that the banks use to manage the cash deposit in Tanzania. The study employed descriptive research design whereas simple random sampling procedure was employed to select 111 respondents. Data were obtained through, interview, documentary review and questionnaires. The analysis was conducted using descriptive statistics and inferential analysis to describe the existing relationship between study variables. The study found out that all four study independent variables such as liquidity level, capital adequacy, asset quality and inflation rate are all positive and statistically significant on the dependent variable since $p<0.05$. This is evident also with the testing of each and every hypothesis generating positive results and outcomes respectively. However, the coefficient of determination, R-squared was 0.737 and the adjusted R-squared was 0.726. This shows the reliability of the model, that the independent variables were collectively 72.6% related to the dependent variable Financial Performance whereby the remaining 27.4% of changes was identified by other factors not captured in the model. The study concludes that, liquidity risk management on financial performance of commercial banks in Tanzania has higher influence to the provision of quality services to customers in the commercial banks. The study recommends that, it is important for commercial banks to maintain adequate capital reserves to ensure that they have the ability to fund their liabilities when they are expected to do so.

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LIST OF ABBREVIATIONS

BIS	Bank for International Settlement
CBK	Central Bank of Kenya
IFM	International Monetary Fund
MPCA	Marginal Productivity of Capital Assets
NIM	Net Interest Margin
NPLs	Non –Performing Loans
ROA	Return On Assets
ROAA	Return On Average Assets
UK	United Kingdom

CHAPTER ONE

INTRODUCTION

1.1 Chapter Overview

This chapter aims at giving the brief background of the study, providing the statement of the problem, giving the general and specific objectives of the study, general and specific research questions, significance of the study as well as the scope of the study.

1.2 Background to the Study

Liquidity has been termed as one of the main factor that led to the marked history of the economic crisis globally from year 2008-2010 that led to the collapse of the global stock exchange, financial sectors, estate sectors and commercial sector (Suleman et al. 2013) cited in Salim and Bilal (2016). According to Salim and Bilal (2016), even though there is a great concern that many analyst consider fall in the housing sector as the root of the crisis in the banking sector, the crisis was also accelerated by valuation and liquidity problems in the United States Banking System in the year 2008.

In the same line of consideration, there is the argument that researchers argue that the financial crisis was not only confined to bankruptcies, nationalizations, quasi-bankruptcies and fall of the financial performance of the global financial institutions but also caused by the collapse of the international stock markets, drying of liquidity in interbank markets that trickled over into the sovereign debts crisis in European

countries like Portugal, Greece, Italy, Spain and Ireland in 2010 (Moro 2013) cited in Salim and Bilal (2016). This situation marked the history of the collapse of the banks like Lehman Brothers and the bail of the other banks out of the governments (Majakusi ,2016) and the crisis called attention to the role of liquidity management to commercial banks. Majakusi, (2016), argued "very liquid assets have low risks and hence low -returns". In this situation, in the absence of regulatory policies it is likely that banks hold liquid assets to the point that they support of keeping firms performance on increase. Citing Molyneux and Thornton (1992), Ferrouhi (2014) maintains that in Europe the ratio of liquid assets to total assets is negatively related to return on assets (ROA). Kosidou et al. (2005), cited in Ferrouhi (2014), evaluated the UK commercial banking institutions for the period between 1995- 2002 on the effect of banks attributes, macroeconomic situation and financial schemes on bank's net interest margin and return on average assets (ROAA) and found that the fraction of liquid assets to customer and short term funding is positively related to net interest margin (NIM).

In Asia, Chen *et al*. (2001) evaluated banking sector in Taiwan from 1993 to 1999, to identify determinants of interest margins and they found that there is an inverse relation between ratio of liquid assists to deposits and net interest margin (NIM). In Malaysia, the study by Ariffin (2012), measured liquidity risks by ratio of total assets over liabilities and get the results that in time of crisis in Malaysia between 2006-2008, that liquidity risk and return on assets and return on equity tend to behave in contrary way an hence liquidity risk may lower return on assets and return on equity. In Pakistan, banking institutions evade the kind of practices that may accumulate

heavy losses of risk. The banks in Pakistan follow the Basel standards for capital adequacy ratio (Ariffin et al. 2016). The standards hold that minimum capital must be maintains as minimum capital requirements. Cited in Ariffin *et al* (2016) , Shafiq and Nasr (2010) argued that bank sectors of Pakistan has faced different types of risks including credit risks, foreign exchange risk, operational risk, interest rate risk , liquidity risk and many more because of unstable country situation.In Nigeria, since 1958, the Central Bank of Nigeria, made brilliant policies to refurbish the Nigerian financial scheme for sustainable economic development which came in form of recapitalization, merger and acquisition consolidation with the purpose of strengthening the financial scheme with little or no emphasis on liquidity management efficacy (Edem**,** 2017).

In Morocco, a research by Ferrouhi (2014) shared experience on performance factors of the Moroccan whereby he mentioned seven factors such as liquidity ratio, size of banks, logarithm of the total assets squared, external funding to total liabilities, share of own bank's capital of the bank's total assets, foreign direct investments, unemployment rate and the realization of the financial crisis variable.

According to Ferouhi (2014), bank financial performance is attributed to bank size of banks, foreign direct investment and on the understanding of the fiscal calamity and negatively on external funding to total liabilities, on share of own bank's capital of the bank's total assets and on unemployment rate while the dependence between bank performance and liquidity ratios and bank performance and logarithm of the total assets squared depend on the model used.

There was no significant lender to Zimbabwe since the year 2009, as the result of the introduction of multicurrency scheme that prompted banks to be very cautious in their lending policies. Solvency risk and credit risks as well as difficulties of financial institution to produce promising revenues led to the wrinkling of capital (Nyasha et al. 2013). Citing the International Monetary Funds Report (IMF, 2010,), Nyasa et al, (2013), reported that "The average solvency ratio (regulatory capital to risk-weighted assets), stood at 15.3 per cent as at December 2010, which was above the 10 percent minimum requirement, but with large variations across individual banks. Seven smaller banks are undercapitalized and some even operate with negative capital". Solvency risk is high as a possible compounding of the liquidity and credit risks, as well as the banking system's difficulties in generating positive incomes could lead to a rapid erosion of capital. According to International Monetary Fund (I.M.F) report (2010), the average solvency ratio (regulatory capital to risk-weighted assets), stood at 15.3 per cent as at December 2010, which was above the 10 percent minimum requirement, but with large variations across individual banks. Seven smaller banks are undercapitalized and some even operate with negative capital. In Zimbabwe, the Economic crisis led to increase no-performing loans, high liquidity risk caused by decline balance of payment that caused slowdown of foreign assets of the financial institution (IFM, 2010).

In Kenya, it is the Central Bank of Kenya that regulates and supervises the banking sector (Musembi et al. 2016). In December 2015, the banking sector consisted 43 commercial banks, 10 microfinance banks, 1 mortgage finance company, 8 foreign offices of foreign banks, 86 foreign exchange bureaus, 14 money remittance

providers and 2 credit reference bureaus (Musembi et al. 2016). The Central bank of Kenya regulations requires commercial banks to maintain a liquidity buffer of twenty percent (CBK, 2015). In a country where commercial banks dominate the financial sector a liquidity shortage from the commercial banks would have an immense implication on the economic growth of the country. Notably, the reasons causing the failures include inadequate capital and liquidity ratio maintenance as well as issuance of nonperforming loans and weak authority scheme (Musembi *et al*. 2016).

In the developing country like Tanzania, banks play a significant role in financial development. The development of bank sector is growing and improving its financial performance through the financial intermediation role, commercial banks in Tanzania contribute to economic growth. Better performance of the commercial banks is the foundation for product innovation, entry of large foreign banks in the retail banking environments and challenges of the recent financial crisis (Zawadi, 2013). These changes had a dramatic effect on the financial performance of the commercial banks in Tanzania (Zawadi, 2013). The Tanzanian commercial banks have gained a significant share of banking and financial markets in the country and provide important benefits to the economy, they facilitate the achievement of the objectives of financial liberalization by boosting competition in banking markets, stimulate improvements in services to customers and expand access to credit, especially to domestic small and medium scale businesses (Msuya, 2014).

But the attainment of these benefits has been jeopardized because the Tanzanian commercial banks have been vulnerable to financial distress due to the presence of

various risks in operation (Msuya, 2014). Substantial number of banks has failed, mainly because of the challenges of risk management of credit portfolio. It is important to the bankers to understand all risks embedded in loaning business and their potential impact on the institutions (Msuya 2014). The following are the categories relate to a bank's lending function, that is credit risk, foreign exchange risk, political risk, interest rate risk and liquidity risk (Msuya 2014). This study therefore assessed the effect of liquidity risk management on financial performance of the deposit taking commercial banks in Tanzania.

1.3 Statement of the Problem

Financial institutions play a significant contribution in allocating money from the bank customers to entrepreneurs and traders. The financial institutions need profit to continue providing services; better revenue performance is for banks necessitate economic growth of the nation. That additionally has the multiplier effect that increase additional investment and reliable economic growth. Unfavorably, liquidity problem can affect performance of the financial institutions. The problem begins, when all clients withdraw all of their money from their accounts, when the banks start facing liquidity management trap (Majakusi, 2016). The Tanzania Financial Stability Report (2016) show that the financial sectors remained stable but surrounded by risks emanating from declining asset quality. In general capital and liquidity ratios increased the minimum requirements, at 18% and 36.6% to 12.5% and 20% respectively. According to the Tanzania Financial Stability Report 2016, asset quality declined as shown by an increase in Non-Performing Loans (NPLs), which were 8.3 % of total loans at end March 2016, compared with 6.8 % in

September 2015. The NPLs related to credit extended to personal, agriculture and trade categories; all together composed of 56.2% of the total NPLs at end March 2016 compared to 52 % in September 2015. Despite the increase in ratio, the general ratio of capital limit was enough to cover unforeseen losses. Additionally loan to deposit ratio increased to 82.7 % at end March 2016 from 78.9 % at end September 2015 corresponding the rapid private sector credit growth. This circumstance prompted the researcher to carry out research to assess the effect of liquidity risk management on financial performance of the deposit taking banks in Tanzania.

1.4 Research Objectives

1.4.1 General Objective

The general objective of this study was to assess the effect of liquidity risk management on financial performance of commercial banks in Tanzania.

1.4.2 Specific Objectives

The study intended to achieve the following specific objectives:

(i) To identify the factors influencing liquidity risks in the commercial banks

(ii) To establish relationship between liquidity risk and financial performance.

(iii) To examine the approaches that the banks use to manage the cash deposit.

1.5 Research Questions

(i) What are the factors influencing liquidity risks in the commercial banks?

(ii) What is the relationship between liquidity risk and financial performance?

(iii) What are the approaches used by banks to manage the cash deposit?

1.6 Significance and Justification of the Study

The study is expected to contribute the following values to the financial institutions of Tanzania:

The findings of this research will help financial institutions in ensuring the adequate liquidity and address illiquidity problems and maintain running capital, to mitigate liquidity risk, and to prevent future financial crises. This study will promote an understanding of liquidity risk, its determinants and how it affects financial performance of commercial banks. By understanding the factors that have a significant effect on liquidity risk bank managers will be develop better liquidity risk management policies. Further they will be able to gainfully manage those factors with a view to improve the financial performance of the banks they manage. The managers of commercial banks will be able to develop better policies that enhance stability and resilient banking sector.

1.7 Scope of the Study

The study was confined in assessing the effect of liquidity risk management on financial performance of commercial banks in Tanzania with reference to Commercial Bank of Africa (CBA) and the findings can be generalized to case bank. This research applied questionnaire method in data collection and the analysis was based on mixed quantitative and qualitative approaches.

1.8 Study Limitation and Delimitation

The researcher does not claim that there is no limitation in this research. This research anticipated challenges such as financial challenges related to transport costs

to the field but this cost was kept at minimum by selecting a close area of research. The research participants could produce wrong answers but in order to make sure that a valid conclusion is drawn by selecting respondents who are knowledgeable about the topic understudy. Pilot study of the questionnaire was done to know whether the respondents understand the questions and revise the questionnaire so that they can be understood well as the result the conclusion was not awkward.

1.9 Organization of the Study

This thesis organized in five chapters. Chapter one provides a general introduction to the study. Chapter Two presents a literature review. This chapter provides conceptual definitions; scholarly work on support regarding the subject matter while Chapter Three describes the research methodology. It describes research paradigm, research design, area of study, population to be studied, sampling design, sampling frame, sampling unit, sampling size, sampling procedure, data collection methods and data analysis techniques, data validity and data reliability and ethical consideration were employed. Chapter Four is the heart of the study; it presents the findings of the study. It also analyses and discusses the finding based on the objectives of the study stated in chapter one. Chapter Five is a concluding chapter. It provides the summary and conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Overview

This chapter is concerned about the review of different literatures related to the research topic. It focuses on different past research studies from different geographical contest regarding liquidity practices**.** It also reviews various theories suggested to explain liquidity risk within financial institutions, related empirical evidence and a discussion of the conceptual framework. The chapter is organized to start with providing different definition of key concepts, the theoretical framework, conceptual framework, empirical review and finally research gaps.

2.2 Conceptual Definition

2.2.1 Liquidity of a Bank

The liquidity of a bank refers to the ability of the bank to fund all contractual obligations as they fall due including lending, investment commitments, deposit withdrawals and maturities in the normal course of business **(**Edem, 2017). According to Bank for International Settlement (BIS, 2017). A financial institution is said to be liquid if it stores sufficient liquid assets and cash together with the capacity to raise money quickly from other sources to enable it to meet its payment obligations and financial commitment in timely manner (Edem, 2017).

2.2.2 Liquid Assets

According to Edem (2017), liquid means all movable resources such as asset in securities that are simply attainable at a short note without loss to the bank. Liquid

assets comprise a considerable part of an institution total resources in the forms of cash, equivalent to cash resources and saleable (Eljelly, 2004, cited in Edem 2017).

2.2.3 Liquidity Risk

Liquidity risk is the probability that the bank will fail to settle obligations with immediacy over a specific period of time. It is a risk arising from a bank's inability to meet its responsibilities when they come due without gaining unwanted losses (Muinde et al. 2016).

2.2.4 Bank Performance

The factors that determine bank financial performance include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like (Ongore and Kusa, 2013).

2.2.5 Capital Adequacy

Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential loses and protect the bank's debtors. Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi and Nazir, 2010).

2.2.6 Asset Quality

The bank's asset is another bank specific variable that affects the profitability of a bank. The bank asset includes among others current asset, credit portfolio, fixed

asset, and other investments. Loan is the major asset of commercial banks from which they generate income, the quality of loan portfolio determines the profitability of banks. The loan portfolio quality has a direct bearing on bank profitability (Ongore and Kause 2013). It is the major concern of all commercial banks to keep the amount of nonperforming loans to low level. This is so because high nonperforming loan affects the profitability of the bank. (Sangmi and Nazir, 2010).

2.2.7 Management Efficiency

This is one of the key internal factors that determine the bank profitability. It is represented by different financial ratios like total asset growth, loan growth rate and earnings growth rate. Yet, it is one of the complexes subject to capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality. The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others.

The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios. One of these ratios used to measure management quality. The higher the operating profits to total income (revenue) the more the efficient management is in terms of operational efficiency and income generation. The other important ratio is expense to asset ratio, the ratio of operating expenses to total asset is expected to be negatively associated with profitability. Management quality in this regard, determines the level of operating expenses and in turn affects profitability (Athanasoglou et al. 2005).

2.2.8 Liquidity Management

Liquidity refers to the ability of the bank to fulfill its obligations, mainly of depositors. According to Dang (2011) adequate level of liquidity is positively related with bank profitability. The most common financial ratios that reflect the liquidity position of a bank according to the above author are customer deposit to total asset and total loan to customer deposits.

2.3 Theoretical Literature Review

2.3.1 Guiding Theories

2.3.1.1 Liquidity Preference Theory

According to Bibow (2005), Keynesians liquidity preference theory states that that people value money for both "the transaction of current business and its use as a store of wealth. Thus, they will sacrifice the ability to earn interest on money that they want to spend in the present, and that they want to have it on hand as a precaution. On the other hand, when interest rates increase, they become willing to hold less money for these purposes in order to secure a profit.

According to Elgar (1999), individual needs money because one has expenses plans to finance, or is contemplating on the prospect course of the interest rate, or, because one is doubtful about what future preserves, so is wise to keep some portions of one's assets in the form of wholesome purchasing power. These reasons are known as transaction, speculative and precautionary motives of money. The banks' liquidity preference approach suggests that banks pursue active balance sheet policies instead of passively accommodating the demand for credit.

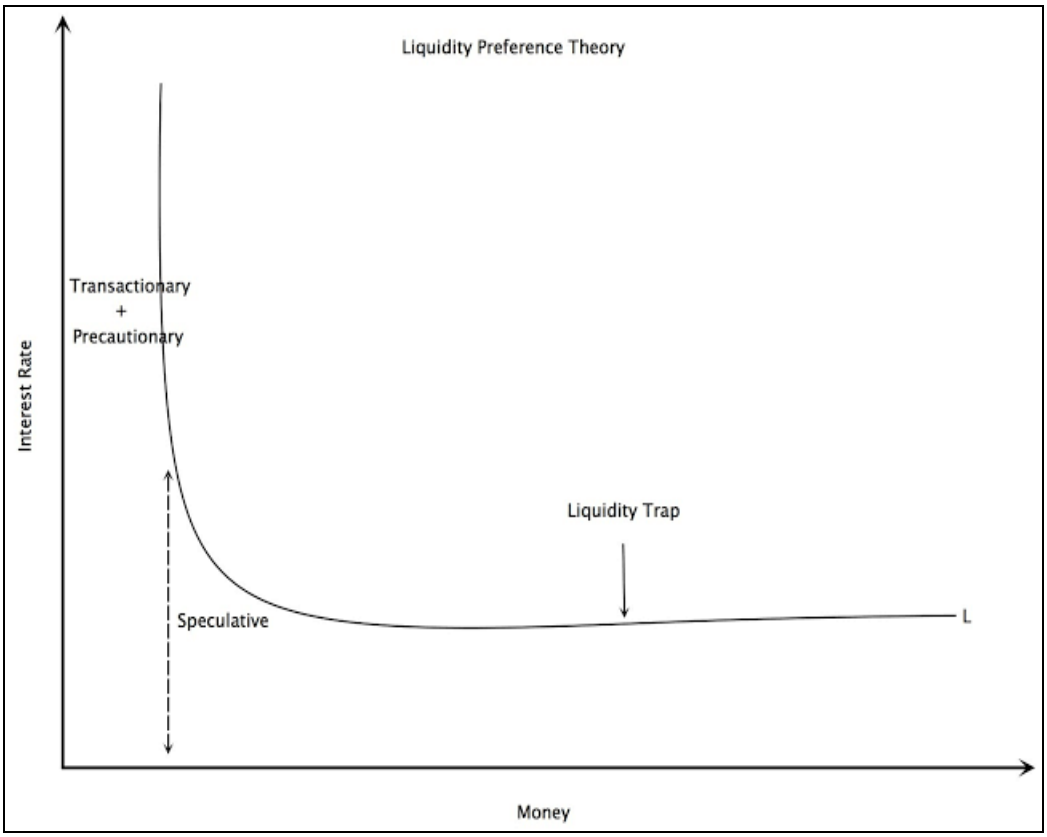

Figure 2.1: Liquidity Preference Theory
Source: Bibow (2005)

2.3.1.2 Shift ability Theory

This theory posits that a bank's liquidity is maintained if it holds assets that could be transferred into cash by selling to lenders or investors. The theory also contends that the liquidity of the financial institution can be established if it has assets to sell and the central bank and the market is ready to purchase for discount.. Thus this theory recognizes and contends that shiftability, marketability or transferability of a bank's assets are a basis for maintenance of liquidity. This theory further contends that highly marketable security held by a bank is an excellent source of liquidity. Dodds (1982) contends that to ensure convertibility without delay and appreciable loss, such assets must meet three requisites. Liability Management Theory Liquidity management theory according to Dodds (1982) consists of the activities involved in

obtaining funds from depositors and other creditors (from the market especially) and determining the appropriate mix of funds for a particularly bank. This point of view contends that liability management must seek to answer the following questions on how do we obtain funds from depositors, how do we obtain funds from other creditors? What is the appropriate mix of the funds for any bank? Management examines the activities involved in supplementing the liquidity needs of the bank through the use of borrowed funds.

The liquidity management theory focuses on the liability side of bank balance sheet. This theory contends that supplementary liquidity could be derived from the liabilities of a bank. According to Nwankwo (1991) the theory argues that since banks can buy all the funds they need, there is no need to store liquidity on the asset side (liquidity asset) of the balance sheet. Liquidity theory has been subjected to critical review by various authors. The general consensus is that during the period of distress, a bank may find it difficult to obtain the desired liquidity since the confidence of the market may have seriously affected and credit worthiness would invariably be lacking. However, for a healthy bank, the liabilities (deposits, market funds and other creditors) constitute an important source of liquidity.

2.3.1.3 Loanable Funds Theory

The hypothesis of the loanable funds theory is that Individuals care only about real variables (output gains or losses, purchasing-power gains or losses). The marginal productivity of capital assets (MPk) is given and determined by the technical characteristics of the productive assets. The time preference of individuals is given by the taste of individuals. Entrepreneurs want to maximize their real profit

Individuals want to maximize their utility by arbitraging between present consumption and future consumption (and so saving).

In the loanable funds market, the supply of loanable funds comes from the individuals who want to save. They are the lenders. The demand for loanable funds comes from the entrepreneurs who want to buy capital assets (i.e. to invest). They are the borrowers. Negotiations in the loanable market are made in terms of real rate of interest: savers can lend at r, and entrepreneurs have to borrow at r. Thus for the entrepreneurs where marginal gain is greater than r they invest more and vice versa. For individuals where marginal gain is greater cost they save and vice versa. An increase in investment will increase interest rates automatically.

2.3.2 Liquidity Risk in Commercial Banks

In easier terms, liquidity risk can be defined as the risk of being unable to liquidate a position timely at a reasonable price (Muranaga and Ohsawa, 2002). From this definition, there are two key dimensions of liquidity risk cited namely liquidating the assets as and when required; and at a fair market value. Banks face liquidity risk if they are not liquidating their assets at a reasonable price. The price fetching remains precarious due to frazzled sales conditions, while liquidating any of the bank's assets urgently. This may result in losses and a significant reduction in earnings. Large-scale withdrawal of deposits may create a liquidity trap for banks (Kumar, 2008), but this may not be always the primary source of liquidity risk. There are various other factors creating massive liquidity problems for the banks. For example, the extensive commitment based, and long-term lending may create serious liquidity issues (Kashyap *et al.*, 2002). Banks having large commitments are bound to honour them

when they become due. Moreover, banks having a large exposure in long-term lending may face problems of liquidating the same during times of immense liquidity pressure.

According to Goodhart (2008), there are two basic facets of liquidity risk: maturity transformation (the maturity of a bank's liabilities and assets) and the inherent liquidity of a bank's asset (the extent to which an asset can be sold without incurring a significant loss of value under any market condition). As such, the two elements of a bank's liquidity are intertwined. Banks do not need to be worried about the maturity transformation if they have the assets that can be sold without bearing any loss. Whereas, banks having assets that are going to be matured in a shorter period may have a less need to keep the liquid assets. This increases the demand of depositors creating liquidity risk. This may cause the failure of a given bank or even the entire banking system due to contagion effect (Diamond and Rajan, 2005). High liquidity increases the leverage and a highly leveraged bank may turn into the consumer of liquidity from the provider.

2.3.2.1 Interest Rate Risk

There are two basic facets of liquidity risk: maturity transformation (the maturity of a bank's liabilities and assets) and the inherent liquidity of a bank's asset (the extent to which an asset can be sold without incurring a significant loss of value under any market condition). In fact, these two elements of a bank's liquidity are intertwined. Banks do not need to be worried about the maturity transformation if they have the assets that can be sold without bearing any loss (Goodhart, 2008). Whereas, banks having assets that are going to be matured in a shorter period may have a less need to

keep the liquid assets. Apart from the above-said maturity mismatch, liquidity risk arises due to recessionary economic conditions, causing less resource generation. This increases the demand of depositors creating liquidity risk. This may cause the failure of a given bank or even the entire banking system due to contagion effect (Diamond and Rajan, 2005). High liquidity increases the leverage and a highly leveraged bank may turn into the consumer of liquidity from the provider.

2.3.2.2 Credit and Solvency Risks

Credit risk indicates the failure of a bank to receive interest and/or the principal amount from loans and non-treasury securities. Credit risk also arises when a bank gives commitment or guarantees on behalf of customers (Sinkey, 2006). Furthermore, credit risk is present in all counterparty exposures like interest rate swaps. On-balance sheet strategies for managing credit risk include increasing provisions for all anticipated loan losses. Although, higher provisions reduce the profitability of a bank but higher provisions as percentage of total assets also signal a bank's efforts towards mitigating credit risk. Thus, provisions as percentage of total assets can provide an indication of the extent of credit risk management (Kashyap et al., 2002). Solvency risk arises out of lack of sufficient funds to pay depositors in the event of a run. Capital to assets ratio indicates the cushion available to a bank against unexpected losses and implicitly protects the interests of uninsured depositors (Allen and Gale, 2004).

2.3.3 Liquidity Risk and Performance of Banks

Liquidity problems may affect a bank's earnings and capital and in extreme circumstances may result in the collapse of an otherwise solvent bank (Central Bank

of Barbados, 2008). Banks may have to borrow from the market even at an exceptionally high rate during a liquidity crisis. This ultimately causes a decline in the banks' earnings. Moreover, a bank's further borrowing to meet depositors' demand may place the bank's capital at stake. Thus, debt to equity ratio will rise, affecting the bank's effort to maintain an optimal capital structure. Liquidity risk may cause a fire sale of the assets of the bank, which may spill over into an impairment of bank's capital base (Diamond and Rajan, 2001). If any of the financial institutions faces a situation in which it has to sell a large number of its illiquid assets to meet the funding requirements (perhaps to reduce the leverage in conformity with the requirement of capital adequacy), the fire sale risk may arise. This scenario may dictate to offer price discount to attract buyers. This situation will have a knock on effect on the balance sheets of other institutions as they will also be obliged to mark their assets to the fire sale price (Gatev and Strahan, 2003).

2.3.4 Managing Liquidity Risk

Liquidity risk management is an essential component of the overall risk management framework of the financial services industry, concerning all financial institutions (Majid, 2003). Ideally, a well-managed bank should have a well-defined mechanism for the identification, measurement, monitoring and mitigation of liquidity risk. A well-established system helps the banks in timely recognition of the sources of liquidity risk to avoid losses. The balance sheets of banks are growing in complexity and dependence upon the capital markets has made the liquidity risk management more challenging (Guglielmo, 2008). Guglielmo (2008) further argues that, the banks having enhanced exposure in the capital markets must have a deep understanding of

the risks involved. The said banks should develop the mechanism required for proper risk measurement and management. A bank should have continuous awareness about the breakdown of its various funding sources in terms of individual strata of clientele' financial markets and instruments (Fatemi and Fooladi, 2006).

2.3.5 Determinants of Financial Performance

Financial measures are considered the most used parameter of business performance measurement, especially in the current economic climate. Most growing businesses ultimately target increased profits, so it is important to know how to measure profitability. The key standard measures are:- Liquidity measures the ability of the firm business to meet financial obligations as they become due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural liquidity refers to the balance sheet (assets and liabilities) and operational liquidity refers to cash flow measures (Diamond and Rajan, 2001).

Two recommended measures of liquidity are the current ratio and working capital. The current ratio measures the relationship between total current firm assets and total current firm liabilities and is a relative measure rather than an absolute dollar measure. The higher the ratio, the more liquid the firm is considered to be. Working capital is a measure of the amount of funds available to purchase inputs and inventory items after the sale of current firm assets and payment of all current firm liabilities. Working capital is expressed in absolute dollars; therefore, determining adequate working capital is related to the size of the firm operation (Diamond and Rajan, 2001).

2.4 Empirical Literature Review

Farooq et al, (2015) conducted research with the purpose to analyze the lies within the problem estimating amount of bank liquidity that conventional banks should keep that guarantee the fulfillment of its monetary obligations and at the same time to maximize investment and profits. The study tested the connection between bank liquidity risk and performance in Conventional banks in Pakistan. The findings show that most banking business depends on the flexibility of a bank to supply liquidity to their purchasers.

Ferrouhi (2014) conducted research in Morocco. The research aimed at relationship between liquidity risk and financial performance of the Moroccan banks and to define the determinants of bank's performance in Morocco during the period 2001-2012. Using panel regression, the result of the research showed that Moroccan bank's performance is mainly determined by 7 determinants: liquidity ratio, size of banks, logarithm of the total assets squared, external funding to total liabilities, share of own bank's capital of the bank's total assets, foreign direct investments, unemployment rate and the realization of the financial crisis variable. Banks' performance depends positively on size of banks, on foreign direct investments and on the realization of the financial crisis and negatively on external funding to total liabilities, on share of own bank's capital of the bank's total assets and on unemployment rate while the dependence between bank performance and liquidity ratios and bank performance and logarithm of the total assets squared depend on the model used.

Bonfim and Kim (2011) in a study on European and North American banks in the 2002-2009 periods illustrate how banks manage liquidity risk. In particular, using regression analysis based on panel data, the authors consider three different measures of liquidity risk and attempt to understand whether banks tend to take more risks in a crisis period and if they follow similar strategies in these periods. The authors also identify the determinants of liquidity risk. The results highlight that the type of relationship between liquidity risk and size, performance and the ratio between loans and deposits depends on the type of liquidity risk measure used. Bank size generally has a positive impact on bank liquidity, while the performance measure has an ambiguous relationship with liquidity risk.

Sadia et al. (2015) did research in Pakistan, which was aimed to find out the impact of liquidity risk on banking sector. The study used simple linear regression through SPSS to investigate the influence between dependent and independent variable such as Return on Equity, Return on Asset, Current Ratio, Capital Adequacy Ratio, belongs to liquidity risk on banking industry. The selection of samples uses purposive sampling method. The result of the study shown that there is negative and significant influence of Capital Adequacy Ratio and Return on Equity to liquidity risk, while Return on Asset and Current Ratio have positively and significant effect. Return on Asset and Current Ratio influences to liquidity risk is positive and in same direction (upward) while Return on Equity and, Capital Adequacy Ratio influences to the liquidity risk is negatively and in opposite direction (downward). Return on Equity and Capital Adequacy Ratio Increases the Liquidity Risk will decreases, while Return on Asset and Current Ratio increases then Liquidity Risk will also increases.

Badreldin and Bilal (2016) investigated on the liquidity position and its impact on financial performance of Omani Banks with the eventual objective to advice policies to improve liquidity management in Omani banks. Using multiple regression analysis of the data collected from the bank's annual reports from 2010-2014, the researchers found that there is a significant relationship between banks to a total assets ratio, liquid assets to liquid liabilities ratio and banks return on assets. However, the study found no significant relationship between bank liquidity position (bank ability to absorb shocks, liquidity at short-term, ability to cope with long term liquidity risk, less liquidity and less risk exposure) and net investment margin (NIM).

Edem, (2017) conducted research in Nigeria with the aim of finding empirical evidence of the impact of liquidity. The study used descriptive, correlations and inferential statistics management on the performance of deposit money banks. The findings from the empirical analysis show that there is a significant relationship between liquidity management and the performance of Deposit Money Banks in Nigeria. The correlation results reveal positive impacts between return on equity and liquidity management variables: liquidity and cash reserve ratios, whereas loan to deposit ratio shows negative impact. However, the key results indicate that only the banks with optimum liquidity were able to maximize returns.

Ajibike and Aremu (2015) did evaluation research with the purpose of raising understanding of the role of liquidity on the performance of commercial banks in Nigeria. The study used Generalized Method of Moments (GMM) estimation method for a panel of 13 banks from the period of 2004 - 2012. The result of the study showed that there is a positive relationship between liquidity and bank performance.

Pendo et al. (2016) did research *Migori Country, Kenya*", with the aim of establishing the influence of financial risk management practices on performance of commercial banks, the specific objectives of their study was t establish the effect of interest rate risk management and liquidity risk management on the financial performance of the commercial bank. Using questionnaire method, the study established that financial risk management practices influenced the financial performance of commercial banks in Kenya. From the findings, the researcher recommends that all the banks should embrace the concept of credit risk management practices.

2.5 Research Gap

Researchers have carried research on effect of liquidity risk on bank performance in Kenya, Morocco, Nigeria, Omani, Pakistan, European and American Banks but little on the aspect of liquidity risk management and its effect on financial performance in commercial banks in Tanzania, is researched. It is upon this gap, there is a need to carry out research on the effect of liquidity risk management on deposit taking commercial banks in Tanzania.

2.6 Conceptual Framework

According to Kombo and Tromp (2006), the conceptual framework is a conceptual model of how one theory makes logical sense of the relationship among the several factors that have been identified as important to the problem.

Figure 2.2 Conceptual framework

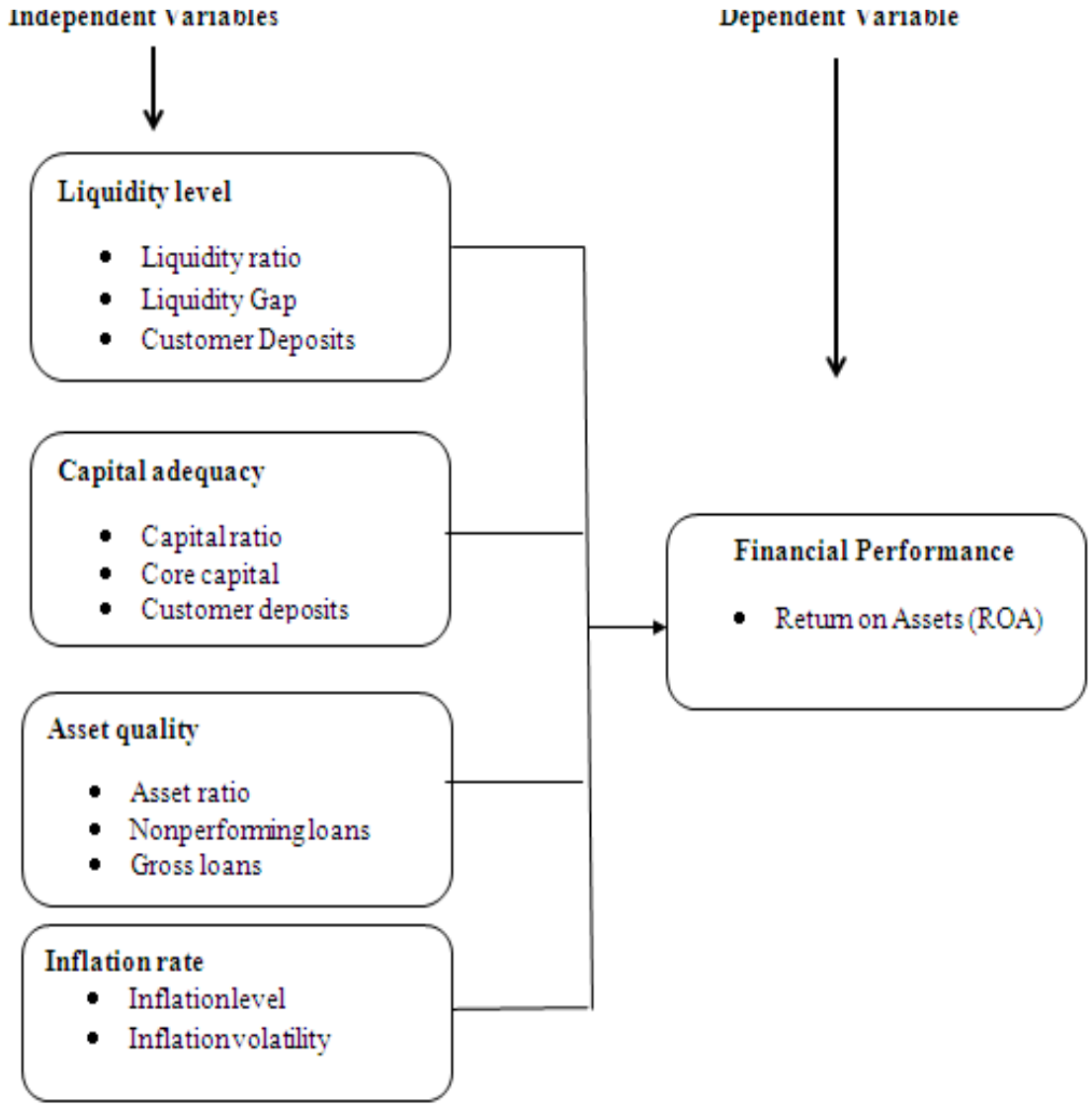

Figure 2.2: Conceptual Framework

Source: Muinde et al (2016)

2.6.1 Liquidity Level

Loans to customer deposits the ratio, measured as the ratio between credit granted and deposits taken from customers provide a broad structural characterization of banks' liquidity risks. Since customers deposits are a broadly stable funding source, those banks that finance most or all of their credit with deposits should, all else same,

be less exposed to liquidity risk. On the other hand banks that show a large funding gap, that is, a very high loan-to-deposit ratio, will be more exposed to liquidity risk, as they will need to rely on wholesale funding markets. As a result banks in which wholesale market funding as a percentage of assets higher will be more sensitive to refinancing risk (Brunnermeier, 2009).

2.6.2 Capital Adequacy

Bonfim and Kim (2011) define capital adequacy is the Tier 1 capital ratio determined as core capital divided by total deposits. Ayele (2012) points that capital adequacy is a measure of a bank's financial strength, in terms of its ability to withstand operational costs and fund liquidity. Capital adequacy also indicates the ability of bank to undertake additional business. The size of capital provides financial flexibility for bank and financial institution. Ongore and Kasu (2013) argued that capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis.

2.6.3 Asset Quality

Dang (2011) noted that loans are the major asset of commercial banks from which they generate income. The loan portfolio quality has a direct bearing on bank liquidity since the highest risk facing a bank is the losses derived from delinquent loans. Li (2007) posited that ratio of loan loss provision to total loans is a measure of bank's asset portfolio has been provided for but not charged off. The higher the ratio the poorer the quality and hence the higher the liquidity risk of the loan portfolio will be. The loans loss provision to total loan is an indicator of asset quality. Banks,

which have a higher ratio of loan loss provisions to total loans, have lower asset quality and tend to incur higher credit risk. Higher risk-taking banks are less efficient. Credit risk is measured as loans loss provision divided by total loans. This is an important factor because poor asset quality is seen as the most prominent cause of bank failures (Yildirim and Philippatos, 2007).

2.6.4 Inflation

Inflation rate is measured by annual growth rate of the consumer price index negatively affects the bank efficiency, because inflation tends to increase cost and reduce cost efficiency. Inflation reflects potential inefficiencies due to price (high interest margin) behaviour of banks a symptom of high inflationary conditions (Grigorian and Manole, 2006). Bunda and Desquilbet (2008) noted that the rate of inflation increases the vulnerability of banks to nominal values of loans provided to customers. Vodova (2011) pointed that liquidity is negatively related to inflation rate.

2.6.5 Financial Performance

Metcalf and Titard (1976) pointed out that the financial performance is to convey an understanding of some financial aspects of a firm and its analysis identifies the financial strengths and weaknesses of the firm. Mwangi (2010) did a study on the effect of financial structure on the financial performance of firms listed at the NSE. He collected data using structured questionnaires. The study identified a strong positive relationship between short term debt financing and the firms' return on equity, liquidity, and return on investment. This hypothesis was contrasted by a number of studies, to them the benefit of short term debt financing is less than its

negative aspects, and hence argue that firms will always prefer to fund investments by internal sources first before considering external sources of funds (Jensen and Meckling, 1976).

Commonly used indicators of financial performance of commercial banks include return on assets (ROA), return on Equity (ROE) and net interest margin. Khrawish (2011) define return on assets as the ratio of income to total asset. It measures the ability of the bank management to generate income by utilizing company assets at their disposal. It indicates the efficiency of the management of a company in generating net income from all the resources of the institution. Return on equity is the ratio of net income after taxes divided by total equity capital. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. It represents the rate of return earned on the funds invested in the bank by its shareholders. ROE reflects how effectively a bank management is using shareholder funds (Khrawish, 2011). Gul, Faiza and Khalid (2011) defined NIM as the net interest income divided by total earnings assets. NIM is the difference between the interest income generated by banks and the amount of interest paid on deposits scaled by the amount of interest earning assets. It is expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methods that were used in data collection and analysis processes and the logic behind those methods. Specifically discusses the research paradigm, research design, area of study, population to be studied, sampling design, sampling frame, sampling unit, sampling size, sampling procedure, data collection methods and data analysis techniques, data validity and data reliability and ethical consideration were employed.

3.2 Research Paradigm

A paradigm is a set of beliefs about the nature of social reality that is the nature of the world and the individual's placed in it (Guba and Lincln, 1994). This study relies on positive paradigms, which have been used in conducting researches. The positive paradigm believes that reality can be gleaned from observable phenomena only and it is independent of the observer. This paradigm ensured that there is a distance between the subjective biases of the researcher and the objective reality of the study. The use of positivism as a philosophical approach enabled the researcher to use deductive reasoning as the research processes. In other words, the study employed this paradigm since it involves classification of features, get count on them and finally construct statistical models in order to give detailed explanation on what observed. Under this study, quantitative data presented in the form of numbers and

statistics arranged in tables, chats and figures which all together used to address the problem of the study.

3.3 Research Design

Descriptive research design was used. This involves collecting empirical data, generally from only one or a small number of cases. It provides rich details about those cases of a predominantly qualitative nature. Descriptive study generally aimed to provide insight into a particular situation and often stresses the experiences and interpretations involved in the study. Respondents were interviewed to obtain background records and questionnaires administered to acquire quantifiable data on the subject. Ultimately, executing a case study typically seeks insights that will have a more generalized applicability beyond a single or few cases under the study (Babbie, 1998). The case study is essentially an intensive investigation of the particular unit under consideration (Kothari, 2004). The method allowed the researcher to investigate in detail the findings about the effect of liquidity risk management on bank performance.

3.4 Area of the Study

The study was conducted at Commercial Bank of Africa, Dar Es Salaam headquarters. This is among of the commercial banks in Tanzania licensed by the bank of Tanzania. The rationale of choosing Commercial Bank of Africa was due to the accessibility of data.

3.5 Study Population

The study population is a set of cases or group members that you are researching (Saunders et el 2009). Therefore, the population for this study involved employees of CBA bank.

3.6 Sample Size, Sampling Frame and Sampling Procedure

3.6.1 Sample Size

Size of sample refers to the number of items to be selected from the universe to constitute a sample. The size of sample should neither be excessively large, nor too small. It should be optimum. An optimum sample is one which fulfills the requirements of efficiency, representativeness, reliability and flexibility" (Kothari, 2004). Michael (2006) argued that statistically any sample size greater than 30 tend to normal distribution can be used for generalization. Therefore, the sample size of the study was 111 of Commercial Bank of Africa.

3.6.2 Sampling Frame

In research it is difficult to view the whole population because of the scarce resources like time, finance and manpower, just mention the few and therefore there must be a sample drawn from the population to represent the population unit, and it represented the whole population and even an inference was based on this sample population. The selected respondents of the study constitute what is technically called a 'sample' and the selection process is called 'sampling technique' (Kothari, 2004). Therefore this study covered only one bank, which is Commercial Bank of

Africa, to get information about effect of liquidity management on bank performance.

3.6.3 Sampling Procedure

Sampling is the process of selecting a sufficient number of elements from the population, so that a study of the sample and an understanding of its properties or characteristics would make it possible for us to generalize such properties or characteristics to the population element (Kothari, 2004). This research applied simple random sampling technique since every individual had equal chance to make a sample.

3.7 Data Collection Types, Methods and Instruments

In this section the researcher is presenting the types of data collection, methods of data collection and data collection instruments, which was used to elicit information from respondents and other sources.

3.7.1 Primary Data Collection Methods

Primary data collection methods to be used by the researcher to collect data from the field will include; interview, questionnaire and observation.

Interview: The interview as one of the primary data collection tool is technique for gathering data in qualitative methodologies (coopers and schindler, 2006). It involves presentation of oral verbal stimuli and reply in terms of oral verbal responses (kothari, 2004). This method will be employed through depth personal interview with the targeted respondents. The researcher to use a mixture of structured interview (due to easy of comparability from one respondent to another) and unstructured interview

(due to its flexibility and great freedom it provides to respondents to ask, in case of need, supplementary or omit questions depending on situation (Kothari, 2004).

The researcher used interview (semi structured interview). The interviews complement what the questionnaires are unable to provide. The interview tool unveiled from these respondents' views/opinions regarding the matter. Yin (1994) affirms that the interview tool is very important source of getting information and it is helpful in handling case study related matters as the research design indicates.

Questionnaires: Questionnaires (structured and semi structured) were used to obtain information's from employees. These complement and supplement information's obtained under interview and observation. The reason is to obtain consistency of responses to the questions asked in repeated measurements (Carmines and Zeller, 1979).

3.7.2 Secondary Data Collection Methods

Secondary data means data that are already available i.e. they refer to the data that have already been collected and analyzed by someone else (Kothari, 2004). The Central Bank of Tanzania (BOT) financial stability report of 2016 and comparative Analysis of Financial Performance of Banks in Tanzania (Zawadi, A, 2013). A research Journal of Finance and Accounting was used in order to access accurate and reliable data.

3.8 Reliability and Validity

3.8.1 Data Reliability

In this study, the reliability of this study was based on the consistence of the answers that was provided by the respondents under the study and it was tested by finding out what level of accuracy was achieved and desired. In that note, reliability test is best performed using Cronbach Alpha test, which is described in Table 3.1.

Table 3.1: Cronbach Alpha Test

Study Variables	Cronbach Alpha
Liquidity Level	0.928
Capital Adequacy	0.864
Asset Quality	0.886
Inflation Rate	0.892
Financial Performance	0.808

Source: Field Data (2019)

The study results in table 3.1 shows reliability analysis on the study variables that they are all reliable and consistent. This is evident with the fact that Kothari (2004) provides that reliability test on study variables is verified by the variables of the test being 0.7 and above. With that, it is evident that the results are all reliable and consistent since the values of the test have exceeded 0.8 for that matter.

3.8.2 Data Validity

Is a degree to which results obtained from the analysis of the data actually represents the phenomenon under the study (Kothari 2004). The validity of this study depended on the responses from various respondents on attempting the similar questions asked. The researcher compared different responses provided by respondents using

questionnaires, and the responses appeared to be the same, it means that the tested questionnaires produced the valid results. Also to ensure validity of this study, the data being collected was reviewed and cross checked.

3.9 Data Analysis

Data analysis usually involves reducing accumulated data to a manageable size, developing summaries, Looking for patterns and applying statistical techniques (cooper and Schindler, 2006). The data collected either primary or secondary data need to be processed for decision making. The collected data from the field were all assembled and clustered qualitatively and quantitatively. The facts collected using questionnaires were computed in SPSS version 23.0 for generating significant statistical measurements to present the results. With that, descriptive statistics as being percentages, frequency tables, charts and graphs were used to describe the profile of the respondents; as well as first and third specific objectives. Despite that, correlation and multiple regressions analysis was performed on the second objective to describe the relationship between study variables. Data obtained from the interview were analyzed using content analysis approach, which was narratively presented with themes to support the findings. The study constitutes mixed method approach.

3.10 Ethical Consideration

Ethical consideration is one of the significant aspects in conducting research. First, the researcher sought research clearance from the Open University. Secondly, this study observed all proposed principles of ethics in research, which included informed

consent, anonymity, confidentiality and beneficence. In informed consent, the researcher asked for their consents before they were interviewed and provided with questionnaires. The benefits of the researcher were described to a particular respondent before any interview or discussion session or administration of questionnaires.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents analyses and discussion of the research findings based on research objectives and research questions as stated in chapter one. In due regard, data were collected through semi-structured interviews and Questionnaires'.

4.2 Demographic Characteristics of Respondents

4.2.1 Age profile of Respondents

The researcher wanted to establish category of respondents who participated in the study. In terms of their ages, the age profile of participants was presented in Figure below:

Table 4.1: Age Category of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 25	13	11.7	11.7	11.7
26-36	18	16.2	16.2	27.9
37-47	27	24.3	24.3	52.3
48-58	53	47.7	47.7	100
Total	**111**	**100**	**100**	

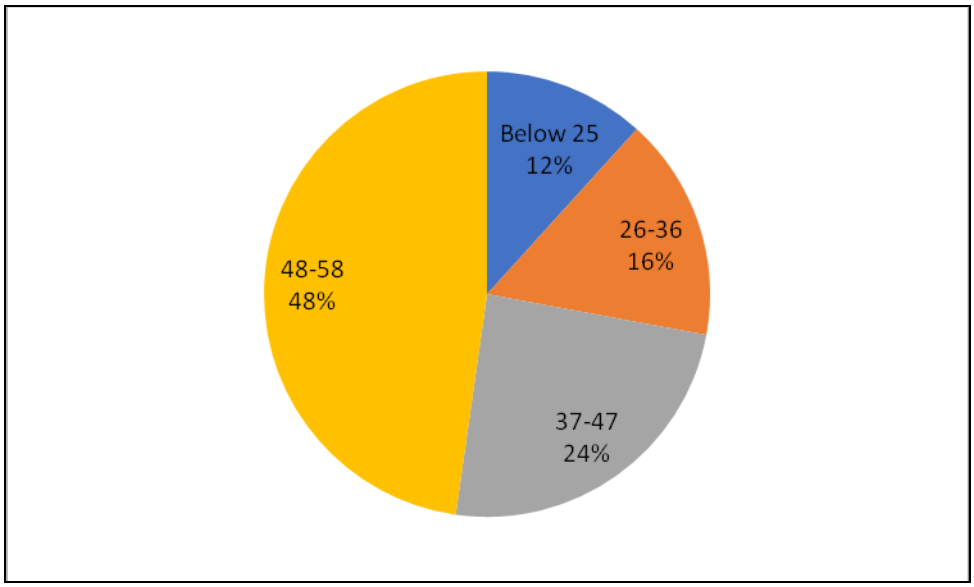

Figure 4.1: Age Category of Respondents

Source: Field Data (2019)

Findings of the study showed that, participants with 48-58 years were (47.7%) constituted the large number of participants followed by respondents aged between 37-47 years (24.4%), and the respondents aged 26-36 years (16.2%), while

respondents aged below 25 years were (11.7%), in due regard, the study findings revealed that, majority of respondents (47.7%) were aged 48-58 years. Thus this can be concluded that 48-58 years is the right age where people are assumed to perform different duties successfully and efficiently in view of the fact they are more experienced and committed with their work.

4.2.2 Gender of the Respondents

It was necessary to find out gender composition of the participants in order to categorize number of male and female who were included in the study. Therefore, the responses were documented in Table 4.2.

Table 4.2: Genders of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	64	57.7	57.7	57.7
	Female	47	42.3	42.3	100.0
	Total	**111**	**100.0**	**100.0**	

Source: Field Data (2019)

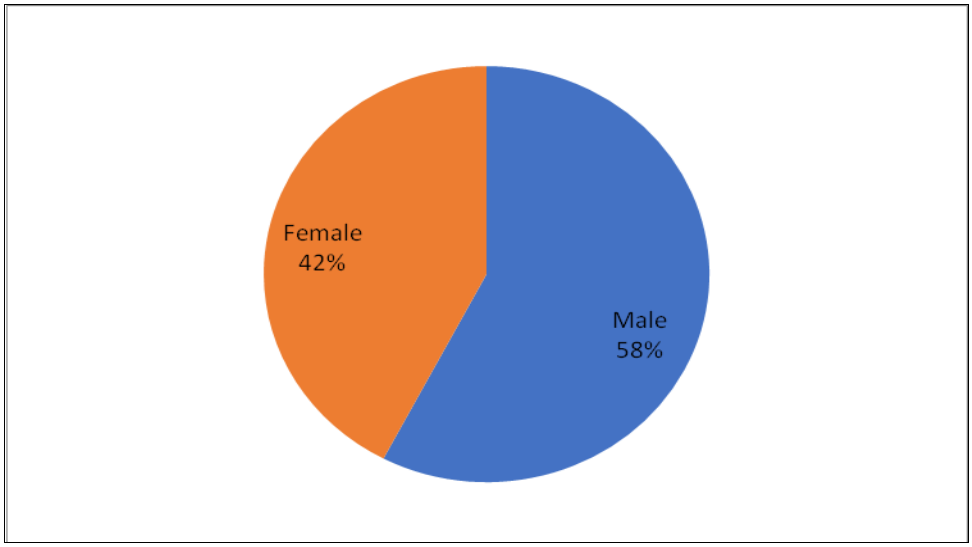

Figure 4.2: Gender of Respondent

Source: Field Data (2019)

The result from the data above indicated that majority of respondents was male (57.7%) while female were (42.3%). Thus, data established that in many organizations are characterized by gender imbalances.

4.2.3 Level of Education of Respondents

Level of education was another factor, which was established so as to know the background of the respondents who were engaged in the study. Thus, findings on the level of education of the respondents are presented in Figure 4.3:

Table 4.3: Level of Education of Respondents

		Percent	Valid Percent	Cumulative Percent
Below secondary education	29	26.1	26.1	26.1
Above secondary education	39	35.1	35.1	61.3
College/university	43	38.7	38.7	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

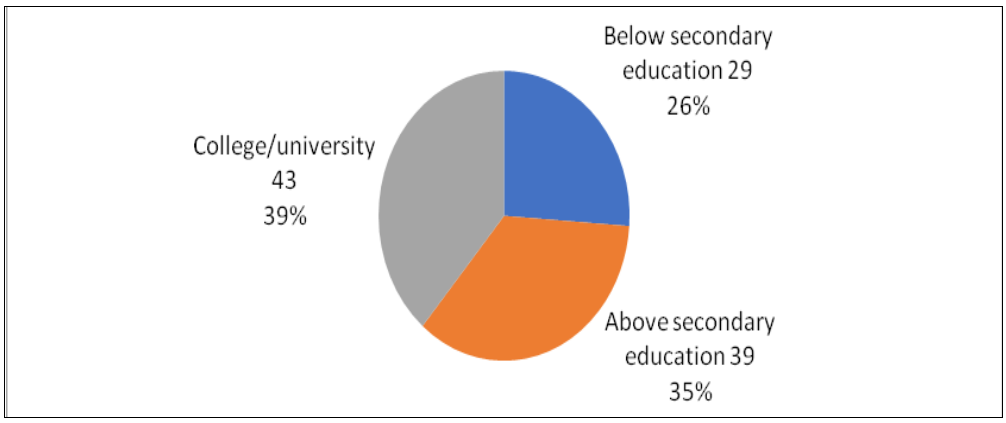

Figure 4.3: Level of Education of the Respondents

Source: Field Data (2019)

Findings of the study showed that, 43 of 111 respondents are college or degree holder, 39 of 111 of the respondents had above secondary education, and 29 of 111 respondents had below secondary education. The study findings revealed that, a big number of respondents 43 of 111 were college or degree holders. It means that; the higher the education level of the respondents betters the performance of works in the Bank.

4.3 Factors Influencing Liquidity Risks in the Commercial Banks

This research objective was designed to identify factors influencing liquidity risks in the commercial banks. Data were collected through interviews and questionnaires with respondents. The followings were the factors identified:

4.3.1 Capital adequacy

The study findings found that, capital adequacy in bank has positive impact towards bank survival since running and development of bank rests on capital. The study

findings are in line with the findings done by Sangmi and Nazir, (2010) who maintained that. Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis; it has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas. Data obtained from questionnaires are summarized in Table 4.4.

Table 4.4: Capital Adequacy in a Bank, how it Affects Liquidity Level

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	20	18	18	18
Disagree	6	5.4	5.4	23.4
Neutral	26	23.4	23.4	46.8
Agree	43	38.7	38.7	85.6
Strongly Agree	16	14.4	14.4	100
Total	**111**	**100**	**100**	

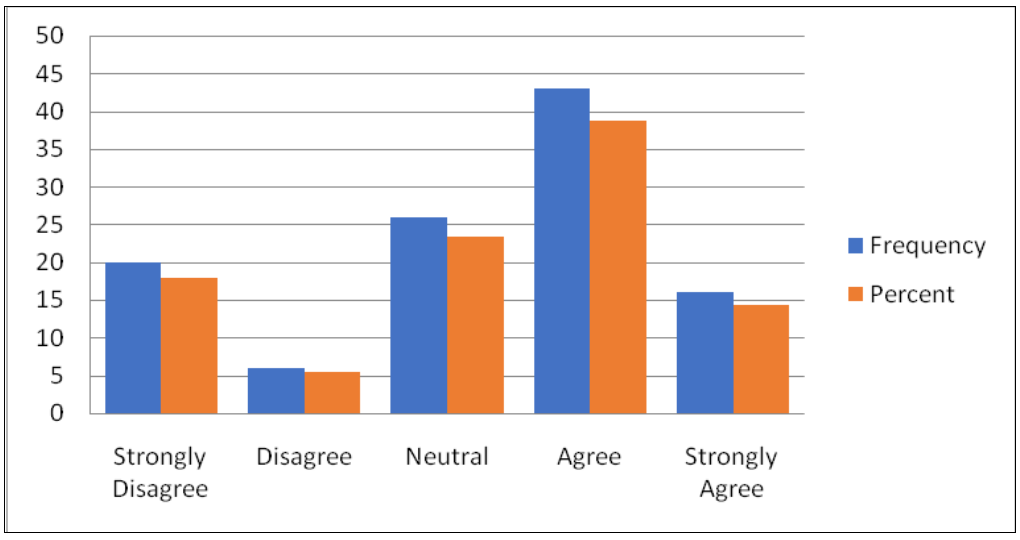

Figure 4.4: Capital Adequacy

Source: Field Data (2019)

The Study findings indicated that, 38.7% respondents agreed as there were Capital adequacy in a Bank is among the factors affecting bank liquidity level, 23.4% mentioned neutral, 18% mentioned strongly disagree, 14.4% mentioned strongly agree, whereas few respondents 5.4% mentioned disagree on Capital adequacy in a Bank is among the factors affecting bank liquidity level.

In the same way, during interview with one of the commercial bank official the following was reported:

> *In the commercial bank there are different factors influencing liquidity risks, however among many, capital adequacy is the one since bank services depends on money and survival of the bank depend on the capital invested, thus in order for the bank to execute its tasks effectively and efficiently capital adequacy is essential. (Interview with commercial bank officials).*

The quotation above signifies the fact that, capital adequacy is among the factors influencing liquidity risks in the commercial bank. However during documentary review it was noted that, capital adequacy is important for the survival of the bank since bank tasks performances and operation expansion depends on the capital invested. Thus for the effective and successfully bank survival capital adequacy is important.

4.3.2 High level of core capital

It was found that, banks with stable capital perform well financially. For instance it was noted that capital enable banks on credit, market and operational risks they are exposed to in order to absorb the potential loses and protect the bank's debtors. The study findings concur with the study findings by Pendo (2016) who established that capital management on banks influence financial performance of commercial banks. However it was further recommended that, all the banks should embrace the concept of credit risk management practices. For instance data obtained through questionnaires are summarized in Table 4.5.

Table 4.5: Banks with High Level of Core Capital Performs Better Financially

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	43	38.7.	38.7.	.9
	Agree	39	35.1	35.1	7.2
	Neutral	21	18.9	18.9	26.1
	Disagree	7	6.3	6.3	61.3
	Strongly disagree	1	9	9	100.0
	Total	**111**	**100.0**	**100.0**	

Source: Field Data (2019)

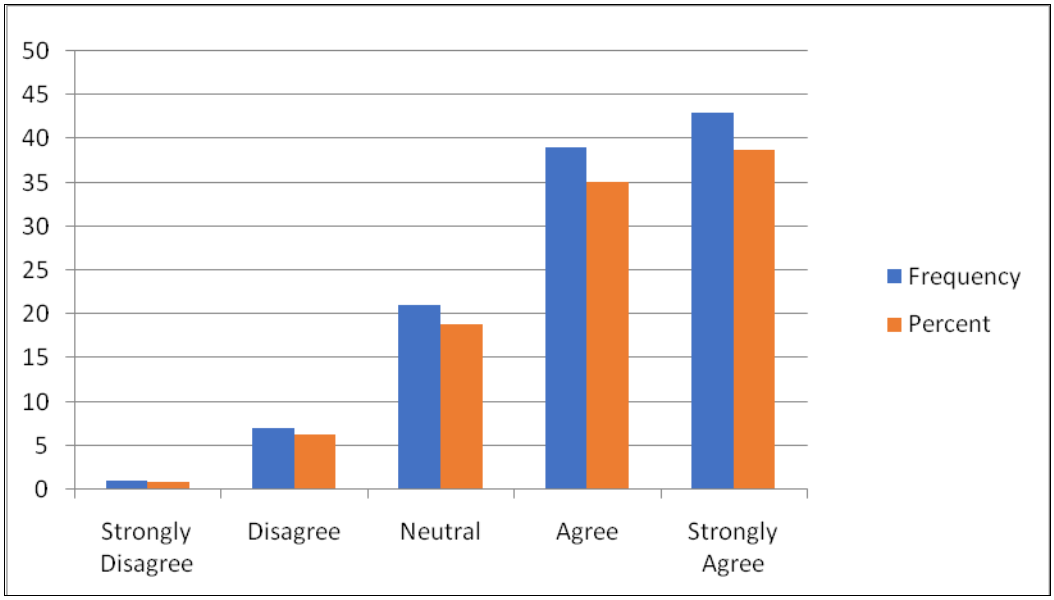

Figure 4.5: High Level of Core Capital

The Study findings indicated that, 38.7% of the respondents strongly agreed that Banks with high level of core capital performs better financially35.1% agreed but again 18.9% mentioned neutral, 6.3% mentioned disagree, where as 9% mentioned strongly disagree that Banks with high level of core capital performs better financially.

4.3.3 Importance of Liquidity Asset Ratio in Influencing Bank Performance

It was revealed that liquidity asset ratio was important in influencing bank performance since majority of participants recognized the importance of liquidity asset. However it was found that though liquid asset was seen significant in enabling bank performance however some respondents strongly disagreed on the liquidity asset ratio being influencer in bank performance since the bank found to fail in fulfilling its obligation in some of the area. The study findings are supported by Dang (2011) who maintained that, adequate level of liquidity is positively related with

bank profitability, as the most common financial ratios that reflect the liquidity position. For instance data obtained through questionnaires survey are summarized in Table 4.6.

Table 4.6: Importance of Liquidity Asset Ratio in Influencing Bank Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	26	23.4	23.4	23.4
Disagree	8	7.2	7.2	30.6
Neutral	16	14.4	14.4	45
Agree	35	31.5	31.5	76.6
Strongly Agree	26	23.4	23.4	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

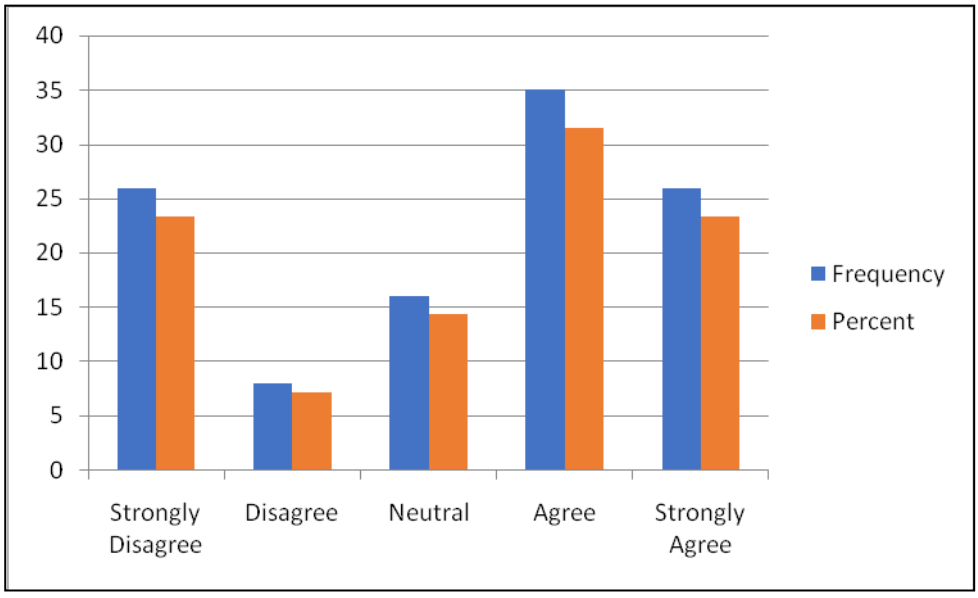

Figure 4.6: Liquidity Asset Ratio, how it Influence Bank Performances

Source: Field Data (2019)

The Study findings indicated that, 23.4 respondents strongly agreed that, Liquid Asset Ratio is important in influencing bank performance 31.5 agreed but again 23.4

strongly disagreed, 14.4% mentioned neutral, while 7.2% mentioned disagree on the Liquid Asset Ratio is important in influencing bank performance.

4.3.4 Bank Size and their influence to bank performance

The study findings indicated that, nature of bank ownership and the size of bank has direct influence to bank performances, as there are banks, which perfume better due to their nature of ownership and size. However it was further found that sometimes ownership and size had nothing to do with bank performance as there are banks, which are large in size and had structured ownership still are poorly performing in the market. In due regard respondents were on the views that what matter it is not ownership rather ability to swim in the market. The study findings are in line with the findings by Ongore and Kusa (2013) who asserted that, factors that determine bank financial performance include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like. For instance data obtained through questionnaires survey are summarized in Table 4.6.

Table 4.7: Bank Size And Ownership Influence Bank Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	22	19.8	19.8	19.8
Disagree	24	21.6	21.6	41.4
Neutral	21	18.9	18.9	60.4
Agree	22	19.8	19.8	80.2
Strongly Agree	22	19.8	19.8	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

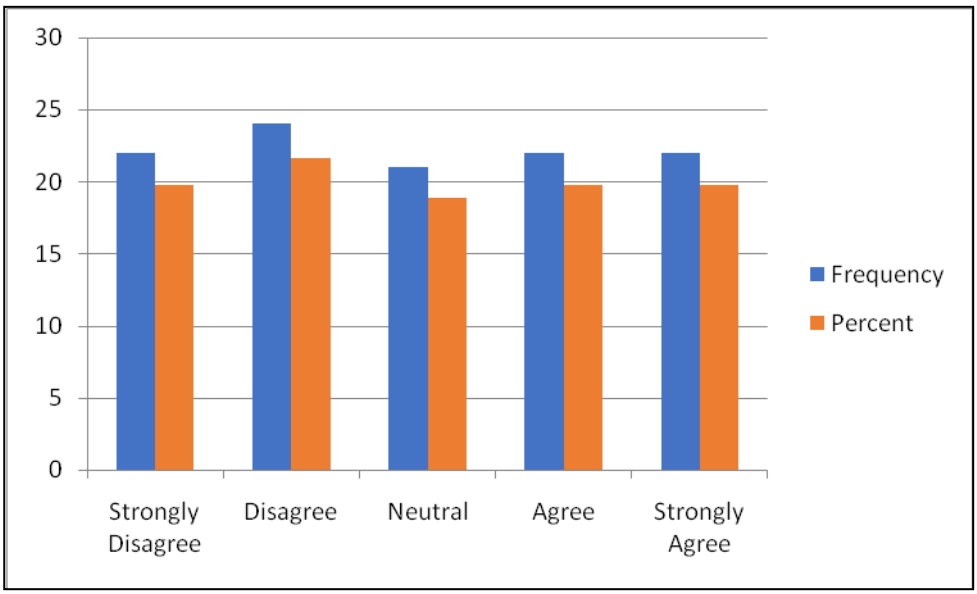

Figure 4.7: Bank Size and Ownership Influence Bank Performance

Source: Field Data (2019)

The Study findings revealed that, (21.6%) disagreed on the Ownership and Bank Size that influences bank performance, in the same way, (19.8%) strongly agreed, (19.8%) agreed on the Ownership and Bank Size influence bank performance. But again (19.8%) strongly disagreed. While (18.9%) of the total respondents were neutral on the Ownership and Bank Size influence bank performance.

4.3.5 Influence of Customer Financial Deposits on Liquidity of the Bank

It was revealed that in order for the bank to fulfill its obligation accordingly, there is a necessity for customer's financial deposit since money circulation is essential for the bank to fulfill its obligation effectively and efficiently. Thus the study findings are supported by the study findings byFarooq (2015) who contended that, banks should keep that guarantee the fulfillment of its monetary obligations and at the same

time to maximize investment and profits. The study findings further show that, most banking business depends on the flexibility of a bank to supply liquidity to their purchasers. For instance data obtained through questionnaires survey are summarized in Table 4.8.

Table 4.8: Customer Financial Deposits Influence Liquidity of the Bank

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	27	24.3	24.3	24.3
Disagree	29	26.1	26.1	50.5
Neutral	28	25.2	25.2	75.7
Agree	17	15.3	15.3	91
Strongly Agree	10	9	9	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

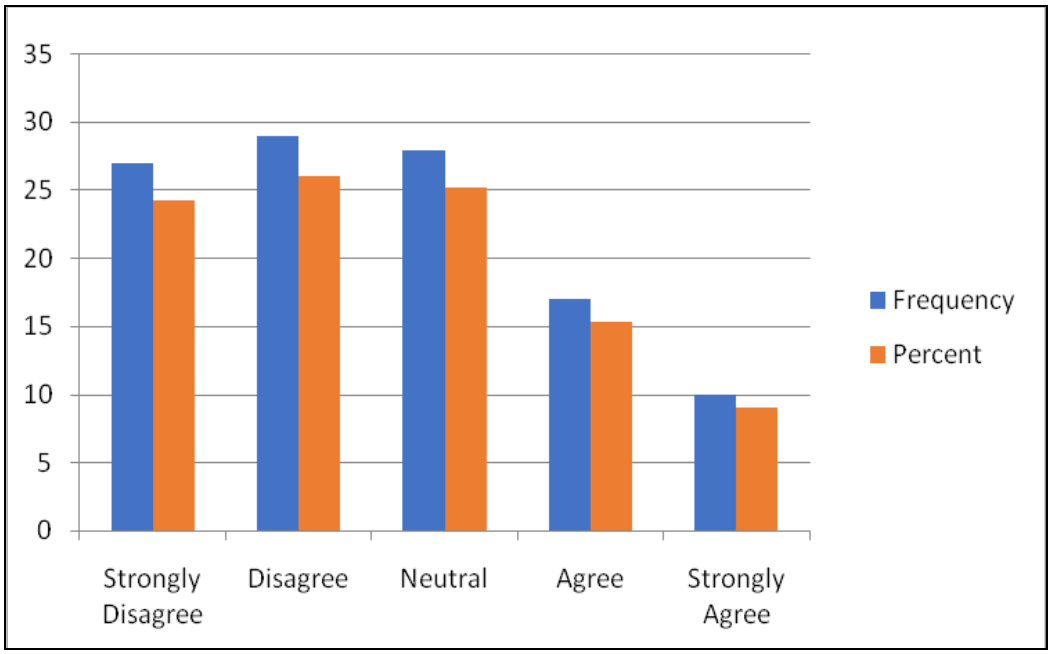

Figure 4.8: Customers Financial Deposits Influence Liquidity of the Bank

Source: Field Data (2019)

Data in the Table above indicated that, (24.3%) of the respondents disagreed on Customer financial deposits influence liquidity of the bank, (25.2%) were neutral on the Customer financial deposits influence liquidity of the bank, (24.3%) strongly disagreed, (15.3%) mentioned agree while few (9.0%) of the total respondents mentioned strongly agree on the Customer financial deposits influence liquidity of the bank.

4.3.6 Influences of Inflation Level and Volatility on lLquidity of the Bank and its Financial Performance

It was found that, inflation level has negative impact on the liquidity of the bank since when the economy shrink the market shrink as well hence reduce ability of the bank to sustain and fulfill its obligation effectively and efficiently to its customers. It was further found that stability of the economy has positive impact to the survival of banks and expansion of markets. The study findings concur with the study findings by Diamond and Rajan, (2001) who asserted that, the stable of the economy lead to higher performance of the bank and the more liquid the firm is considered to be. For instance data obtained through questionnaires survey are summarized in Figure 4.6.

Table 4.9: Influences of Inflation Level and Volatility on Liquidity of the Bank and its Financial Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	30	27	27	27
Disagree	33	29.7	29.7	56.8
Neutral	23	20.7	20.7	77.5
Agree	18	16.2	16.2	93.7
Strongly Agree	7	6.3	6.3	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

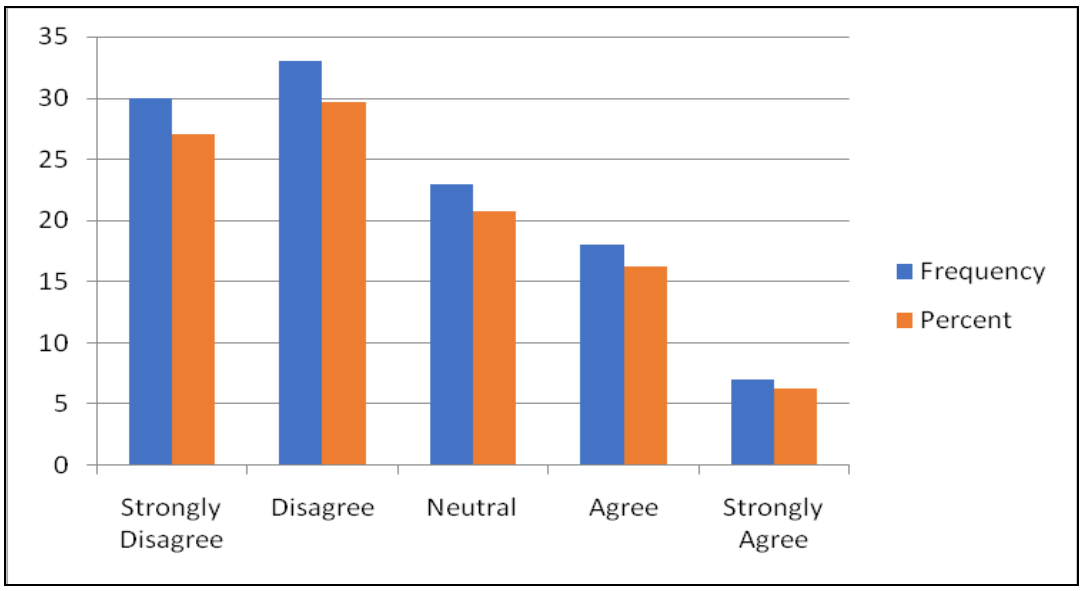

Figure 4.9: Influences of Inflation Level and Volatility on Liquidity of the Bank and its Financial Performance

Source: Field Data (2019)

The Study findings above indicated that, 29.7% of the respondents disagreed on the Inflation level and volatility influences the liquidity of the bank and its financial performance, 27.0% strongly disagreed, 20.7 mentioned neutral, 16.2 mentioned agree, then 6.3 strongly agreed on the Inflation level and volatility influences the liquidity of the bank and its financial performance.

4.3.6 Influences of Internal Control System on Bank Performance and Liquidity Level

It was found that, internal control of the bank especially control of the management, staffs, service delivery, system and the like had direct influence to the performance of the bank. It was further found that ability of the bank to fulfill its obligation depends on the internal control system of the bank. For instance it was established that good management of employee is direct linked to quality service delivery to the

customers since once employee are well managed are likely to deliver quality service to the customers. For instance data obtained through questionnaires survey are summarized in Table 4.10.

Table 4.10: Internal Control System Influences Bank Performance and Level

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	27	24.3	24.3	24.3
Disagree	35	31.5	31.5	55.9
Neutral	26	23.4	23.4	79.3
Agree	15	13.5	13.5	92.8
Strongly Agree	8	7.2	7.2	100
Total	**111**	**100**	**100**	

Source: Field Data (2019)

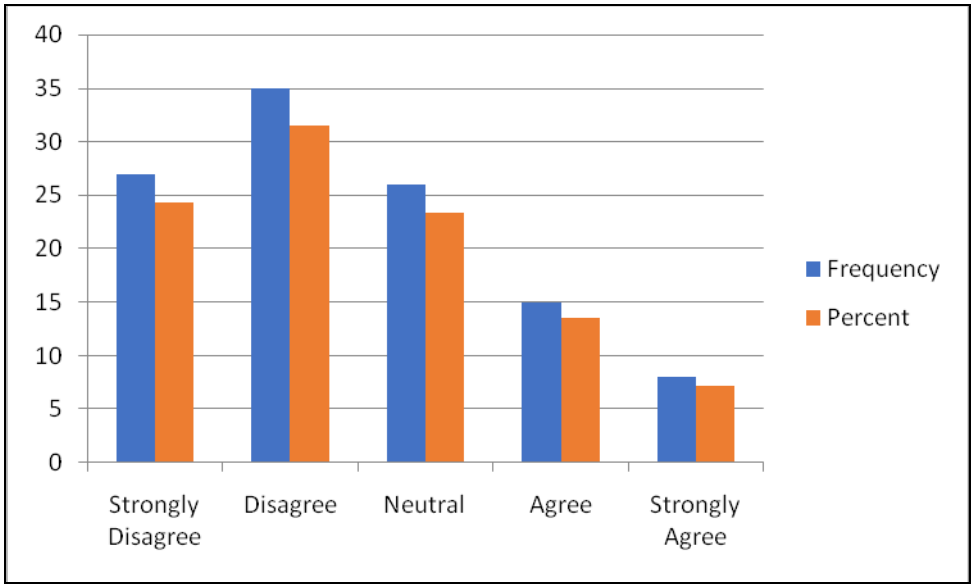

Figure 4.10: Internal Control System Influence Bank Performance and Liquidity Level

Source: Field Data (2019)

The figure 4.10 indicates that, 31.5% of the total respondents disagreed, 24.3% strongly disagreed, 23.4% mentioned neutral, 13.5% mentioned agree. While few 7.2% of the total respondents mentioned strongly agree on the internal control system influences bank performance and liquidity level.

4.4 Relationship between liquidity Risk and Financial Performance

The relationship between liquidity risk management and financial performance is performed using inferential analysis specifically correlation and multiple regression which illustrates the existing the relationship between the two variables for that matter. In that case, the study constitutes four predicting variables as independent ones namely liquidity level, capital adequacy, asset quality and inflation rate which are tested on financial performance as the dependent variable. However, the relationship between study variables is conducted through hypotheses testing and inferential tests between variables of the study.

4.4.1 Hypotheses Testing

The test of each and every study hypotheses is performed using Chi-square test to enable the description of each predicting variable to the dependent variable using the sub variables in each independent variable with the description being conducted as follows.

4.4.1.1 Liquidity Level and Financial Performance

The analysis seeks to describe the relationship between liquidity level and financial performance in commercial banks using sub variables as attributes of liquidity level. In that case, Chi-square test is performed with findings described in Table 4.11.

Table 4.11: Chi-Square Test

Variable Indicators	Chi-Square	Difference	Assumption Sig.
Liquidity ratio	15.732	4	.000
Liquidity gap	18.744	4	.000
Customer deposits	17.739	4	.001

Source: Field Data (2019)

The findings reveal that the variables of the study on liquidity level are positive with significant effect on the predicting variable since the value of the Chi-square test is above 9.488, which imply the effect is positive for that matter. The implication is that liquidity level as the predicting variable is likely to have positive effect to the financial performance in the commercial banks through liquidity risk management.

4.4.1.2 Capital Adequacy and Financial Performance

This entails the description of the relationship between capital adequacy and financial performance whereas Table 4.12 describes the findings as follows.

Table 4.12: Chi-Square Test

Variable Indicators	Chi-Square	Difference	Assumption Sig.
Capital ratio	19.992	4	.000
Core capital	24.823	4	.000
Customer deposits	31.472	4	.000

Source: Field Data (2019)

Findings in Table 4.12 show that the value of Chi-square is above 9.488 with significant levels among all variables tested. This entails that all variables are strong and significant predictors of capital adequacy attributes on financial performance of commercial banks in Tanzania.

4.4.1.3 Asset Quality and Financial Performance

The objective of the test for the study is to show the relationship between asset quality and financial performance using the identified measurements relevant to capture the actual relationship between variables. The measurements are asset ratio, nonperforming loans and gross loans. Table 4.13 describes the findings.

Table 4.13: Chi-Square Test

Variable Indicators	Chi-Square	Difference	Assumption. Sig.
Asset ratio	21.155	4	.000
Non-performing loans	25.829	4	.000
Gross loans	33.057	4	.000

Source: Field Data (2019)

Findings in Table 4.13 show the values of Chi-square being higher than 9.488 at 4 degrees of freedom with significant level among all variables. This implies that all variables are positive and strong in influencing asset quality as strong and positive predictor on financial performance of commercial banks in Tanzania.

4.4.1.4 Inflation Rate and Financial Performance

The purpose of the test is to show the contribution of inflation rate on financial performance of commercial banks in Tanzania using the identified variables for the study. The identified variables for the test are inflation level and inflation volatility. Therefore, the test is illustrated in Table 4.8.

Table 4.14: Chi-Square Test

Variable Indicators	Chi-Square	Difference	Assumption. Sig.
Asset ratio	21.155	4	.000
Non-performing loans	25.829	4	.000
Gross loans	33.057	4	.000

Source: Field Data (2019)

Findings in Table 4.17 show the values of Chi-square being higher than 9.488 at 4 degrees of freedom with significant level among all variables. This implies that all variables are positive and strong in influencing asset quality as strong and positive predictor on financial performance of commercial banks in Tanzania.

4.4.1.4 Inflation Rate and Financial Performance

The purpose of the test is to show the contribution of inflation rate on financial performance of commercial banks in Tanzania using the identified variables for the study. The identified variables for the test are inflation level and inflation volatility. Therefore, the test is illustrated in Table 4.15.

Table 4.15: Chi-Square Test

Variable Indicators	Chi-Square	Difference	Assumption Sig.
Inflation level	18.829	4	.003
Inflation volatility	22.938	4	.000

Source: Field Data (2019)

Results in Table 4.15 shows that the values of Chi-square test are above 9.488 with 4 degrees of freedom among all variables as predictors to the inflation rate at

significant levels. Therefore, it is clear that the variables are strong predictors of inflation rate on financial performance in commercial banks in Tanzania.

4.4.2 Inferential Statistics

Since that is the case, first and foremost the overall testing of all study variables is undertaken whereas all predictors are tested on dependent variable through model summary testing with the results being illustrated in the table 4.9 below.

Table 4.16: Relationship between Liquidity 'Risk and Financial Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.823[a]	0.737	0.726	0.71626	1.79

Source: Field Data (2019)

Independent Variables: Liquidity level, capital adequacy, asset quality and inflation rate

Dependent Variable: Financial Performance

The Table 4.16 describes the overall influence of all study independent variables on dependent variable, which is illustrated through the value of R^2. This necessitate that financial performance in commercial banks through liquidity risk management is influenced by liquidity level, capital adequacy, asset quality and inflation rate by 73.7%. This implies that the study assumptions have been positively attained.

Table 4.17: ANOVA

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1361.652	8	310.153	1.850E3	.000[a]
	Residual	12.210	73	.146		
	Total	**1244.102**	**111**			

a. Predictors: liquidity level, capital adequacy, asset quality, inflation rate

b. Dependent Variable: FP

Normality Test

The test is performed to show the distribution pattern of variables of the study and their relationship based on normality. Therefore, the results are illustrated in the Table 4.18.

Table 4.18: Normality Test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Factors	Statis ic	df	Sig.	Statistic	df	Sig.
Liquidity level	.263	111	.000	.738	111	.000
Capital adequacy	.279	111	.000	.725	111	.000
Asset quality	.284	111	.000	.741	111	.000
Inflation rate	.310	111	.000	.718	111	.000
Financial performance	.161	111	.000	.803	111	.000

a. Lilliefors Significance Correction

Results on the table above revealed that the P-value of all predicting variables to the dependent variable such as liquidity level, capital adequacy, asset quality and inflation rate is 0.000 probability using Shapiro-Wilk test of normality. This implies that the variables are significant on the dependent variable since $p<0.05$ on all predicting variables to the dependent variable. Therefore, the fact is that the variables are normal distributed.

Homoscedasticity Test

Heteroscedasticity means presence of error of variance in the linear regression model which is a violation against homoscedasticity variance assumption. Gujarat and Porter (2010) provide that heteroscedasticity can be diagnosed by using White Test. According to them, White Test can be done by comparing the value of calculated and observed Chi-square values by using the formula: $\chi^2 = N \times R^2$ whereby χ^2 = is the calculated Chi-square, N= is the number of observation and R^2 = R-Square or coefficient of determination. The rule of thumb is: When Chi-square calculated is less than Chi-square observed there is no heteroscedasticity problem in the model. Therefore, results in table revealed that R^2 is 0.737 while N = 111, therefore calculated $\chi^2 = 0.737 \times 111 = 81.807$ while the Chi-square observed at 0.05 level of significance and N is 111 is 81.807 The result indicate that calculated Chi-square is less that observed Chi-square which imply that the model does not exhibit heteroscedasticity problem. Heteroscedasticity Test.

Table 4.19: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.152932	Prob. F(3,76)	0.3334
Obs*R-squared	3.482354	Prob. Chi-Square(3)	0.3231
Scaled explained SS	6.324979	Prob. Chi-Square(3)	0.0968

Source: Field Data (2019)

Correlation Analysis

Correlation analysis is conducted to describe the predicting study variable with higher influence than others in the data set for that matter. Therefore, the study results are shown in the Table 4.20.

Table 4.20: Correlation Analysis

	Financial Performance	Liquidity Level	Capital Adequacy	Asset Quality	Inflation Rate
Financial Performance	1.000				
Liquidity Level	0.560	1.000			
Capital Adequacy	0.477	0.104	1.000		
Asset Quality	0.392	0.052	0.104	1.000	
Inflation Rate	0.303	0.103	0.107	0.101	1.000

p<0.001, p<0.05, p<0.1

Source: Field Data (2019)

The study findings shows facts on correlation analysis on study variables that whereas the highest correlation is seen to be between liquidity level and capital adequacy though the highest correlation is seen on liquidity level since the variable has the highest correlation value than others in the data set. This implies that financial performance in commercial banks through liquidity risk management is influenced mostly by liquidity level. Despite the fact that the correlation is positive, the coefficient is small which shows that there is no multicollinearity. This is a problem, which is sorted by multiple regression analysis. In that note, multicollinearity test is described using Table 4.21.

Table 4.21: Multicollinearity Test

Coefficients[a]			
		Collinearity Statistics	
Model		Tolerance	VIF
1	Liquidity level	.457	2.065
	Capital adequacy	.402	2.430
	Asset quality	.560	1.707
	Inflation rate	.545	1.751

a. Dependent Variable: Financial Performance

The results in the Table 4.21 depicts the values of VIF being less than 5 which implies that the multicollinearity error has been resolved since the contribution of each study variable is attained and revealed to the dependent variable.

Multiple Regression Analysis

Multiple regressions are conducted also to show the single influence of each independent variable on the dependent variable, which seeks to correct the multicollinearity error. The coefficient of determination, R-squared was 0.737 and the adjusted R-squared was 0.726. This shows the reliability of the model, that the independent variables were collectively 72.6% related to the dependent variable Financial Performance. The remaining 27.4% of changes will be identified by other factors not captured in the model.

Table 4.22: Regression Analysis for the Dependent Variable

Financial Performance	Coefficient	Std. Error	T	Sig.
(Constant)	-15.173	5.474	-1.139	.119
Liquidity Level	3.025	.287	12.709	<0.001
Capital Adequacy	2.733	.271	12.550	<0.001
Asset Quality	2.527	.259	12.377	<0.001
Inflation Rate	2.334	.232	12.215	<0.001

Source: Field Data (2019)

The study results clearly shows the facts on multiple regression analysis on all study independent variables on the dependent variable. The Durbin-Watson statistic is 1.79, which is less than 2; it means that there is a serial correlation between independent variables and financial performance. Therefore, this meets one of the regression assumptions. The mean Variance Inflation Factor (VIF) is 1.08 and the VIF of all independent variables is below 5, which means that co-linearity does not

exist between the independent variables present in the model. The breusch-pagan test for heteroscedasticity gave a probability of 0.9105, making it significant hence accepting that variables have constant variances.

The analysis in Table exhibits some interesting results. Four variables namely liquidity level, capital adequacy, asset quality and inflation rate are significant at the 95% confidence level as well positively significant. This means increase an in liquidity level, capital adequacy, asset quality and inflation rate will lead to a increase in Financial performance of commercial banks.

The facts entails that all four study independent variables such as liquidity level, capital adequacy, asset quality and inflation rate are all positive and statistically significant on the dependent variable since $p<0.05$. The implication of the findings is that financial performance in commercial banks through liquidity risk management is influenced by liquidity level, capital adequacy, asset quality and inflation rate. Since that is the case, the fact on the results is that financial performance is indeed influenced by liquidity level, capital adequacy, asset quality and inflation rate through liquidity risk management since $p<0.05$; the assertion is supported by Ayele (2012) stating that bank profitability is determined by several key components since they have proved to be significant as well in the respective context the study has been undertaken. In that note, they include liquidity margin or level of the bank such that once it is certain and adequate for the bank to conduct lending and ensure returns while prospering well automatically ensures profitability which is also performance financially as far as banks is concerned.

In addition to that, Badreldin *et al* (2016) suggests that liquidity management is highly important in ensuring financial performance in commercial banks because it is the determinant and measure of the bank capital and the ability to serve the degree which it can offer while guarantees significant returns for that matter. Furthermore, liquidity management fosters sufficient asset quality control on the bank since it monitors asset ratio and facilitates means to cope with non-performing loans for that matter.

Based on the regression results in Table the model of this study can be written as follows:

Empirical Model:

FP= -15.173 + 3.025LL + 2.733CA + 2.527AQ + 2.334IR

Significant model:

FP= -15.173 + 3.025LL + 2.733CA + 2.527AQ + 2.334IR

Where by

FP = Financial Performance

LL = Liquidity Level

CA = Capital Adequacy

AQ = Asset Quality

IR = Inflation Rate

Model shows that a 3.025 point increase in liquidity level will lead to a 1 point increase in financial performance, which means liquidity level is positively correlated to financial performance. Along with liquidity level, Capital adequacy also

has a positive relation with the financial performance. As model shows 2.733 point increase in Capital adequacy will lead to a 1 point increase in financial performance. A 2.527 point increase in Asset Quality will result in a increase of 1 point in financial performance, a 2.334 point increase in Inflation Rate will result in a increase of 1 point in financial performance. This shows a positive relation between these five variables namely Liquidity Level, Capital Adequacy, Asset Quality and Inflation Rate with Financial Performance.

In the econometric model, the relationship between components and financial performance of commercial banks can be summarized by Table below, which presents the findings based on the specific objective of the study of finding out the determinants of profitability.

Table 4.23: Summary of Findings

S/N	Null Hypothesis	p-value	Conclusion
1.	There is no significant relationship between liquidity level and financial performance of commercial banks	<0.001	Reject null hypothesis
2.	There is no significant relationship between Capital Adequacy and financial performance of commercial banks	<0.001	Reject null hypothesis
3.	There is no significant relationship between Asset Qualityand financial performance of commercial banks	<0.001	Reject null hypothesis
4.	There is no significant relationship between Inflation Rateand financial performance of commercial banks	<0.001	Reject null hypothesis

Source: Field Data (2019)

4.5 Approaches used by banks to manage cash deposit

This section presents the last research objective of the study which attempts to examine the approaches that the banks use to manage the cash deposit. Data were collected through interviews and questionnaires. Different approaches were found to be used by banks in managing their cash deposits some were as follows:

4.5.1 Monitoring Cash Flow

It was found that, in order for the bank to sustain cash deposit and survival in the market monitoring cash flow is necessary since bank performance depends on the cash flow. In the same way Fatemi and Fooladi, (2006) found that, A bank should have a regular cash flow monitoring and continuous awareness about the breakdown of its various sources in terms of individual strata of clientele' financial markets and instruments. Data obtained from questionnaires are summarized in Figure 4.24.

Table 4.24: Monitoring Cash Flow

MONITORING CASH FLOW				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Strongly Disagree	5	4.5	4.5	4.5
Disagree	13	11.7	11.7	16.2
Neutral	40	36	36	52.3
Agree	49	44.1	44.1	96.4
Strongly Agree	4	3.6	3.6	100
Total	**111**	**100**	**100**	

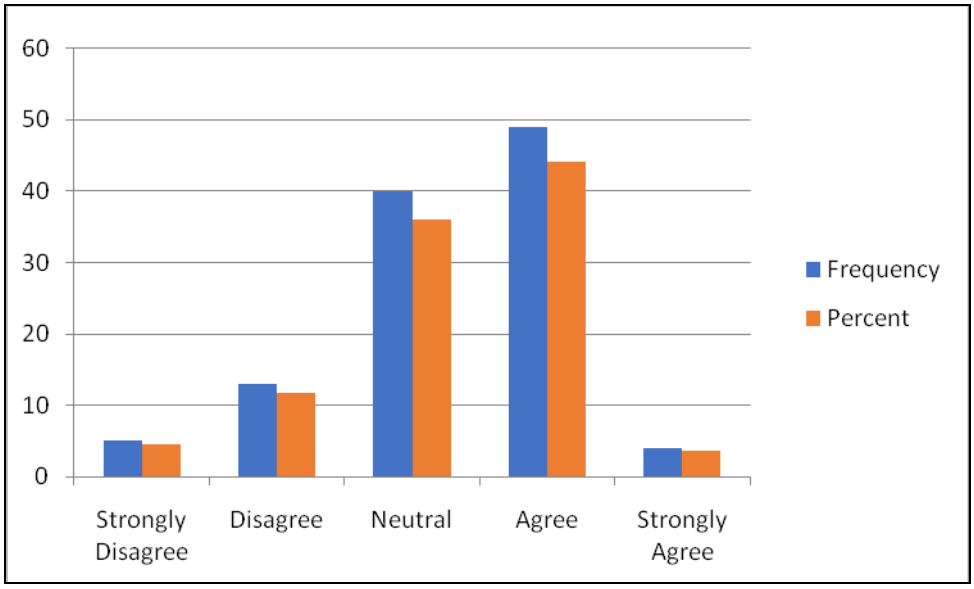

Figure 4. 11: Monitoring Cash Flow

Source: Field Data (2019)

The Study findings indicated that, 44.1% respondents agreed, 36.0% mentioned neutral, but again 11.7 disagreed on the cash flow monitoring, 4.5% mentioned strongly disagree. While 3.6% mentioned strongly agree on cash flow monitoring.

In the same line during, in-depth interview with one of the commercial bank official the following statements were captured:

> *In our side the bank uses different approaches on cash deposit mainly to sustain its customers and improve service delivery so as to attract other customers. However, the top commercial bank management is the ones who are responsible to make sure that the proposed and suggested approaches are effectively utilized in the bank for the betterment and survival of the institution at the presence of other competitors'*.(in depth interview with the bank official).

The quote above implies that, the commercial bank had different approaches to ensure cash deposit to its customers; in the same way the approaches initiated were suggested and developed by the bank top managements.

4.5.2 Encourage Faster Payments

It was found that improvement in payment and service delivery has an impact in managing cash deposit in the bank, since customers are very much impressed with the service delivery and the quality of the services offered in the bank. The study findings concur with the findings by Edem, (2017) who maintained that, quality and faster delivery of services to customers is among the techniques used by most organization in maintaining and attracting new customers hence expand institution market.

Table 4.25: Encourage Faster Payments

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	3.6	3.6	3.6
Disagree	16	14.4	14.4	18
Neutral	43	38.7	38.7	56.8
Agree	48	43.2	43.2	100
Total	**111**	**100**	**100**	

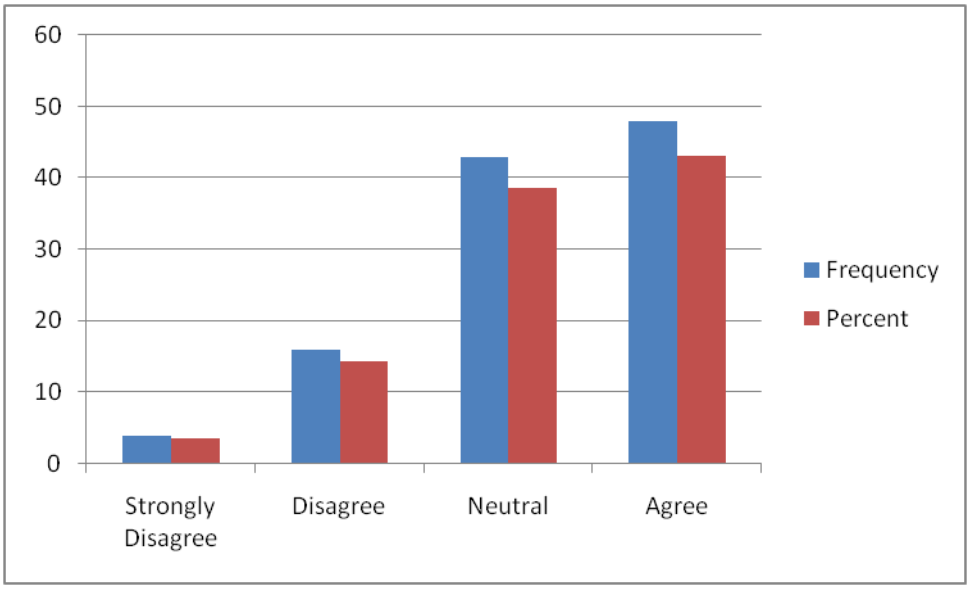

Figure 4.12: Encourage Faster Payments

Source: Field Data (2019)

Data in the Table 4.25 indicated that, 38.7% of respondents mentioned neutral, 36.9% mentioned agree, 14.4% mentioned disagree, 6.3% mentioned strongly agree, whereas only 3.6% of the total respondents mentioned strongly disagree on the encouragement of faster payment.

4.5.3 Use Available Technology

It was found that, apart from encouraging technology development but bank use the available technology to insure cash deposit. It was further noted that the use of E-system on bank performances enables the bank in its tasks performances. However majority of the respondents were on the views that the use of technology in the bank facilitated the tasks performances.

Table 4.26: Use Available Technology

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	15	13.5	13.5	13.5
Disagree	21	18.9	18.9	32.4
Neutral	29	26.1	26.1	58.6
Agree	40	36	36	94.6
Total	**111**	**100**	**100**	

Source: Field Data (2019)

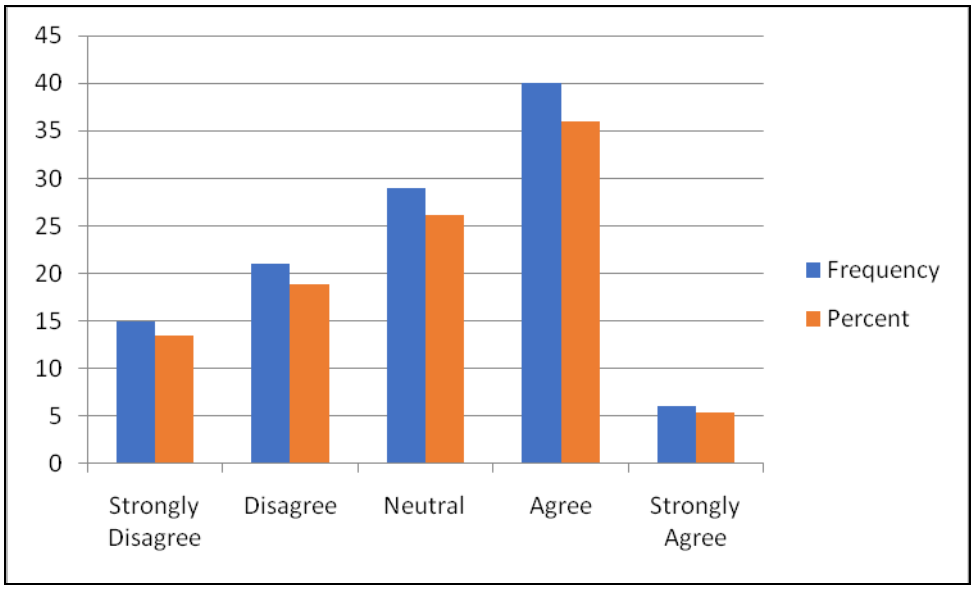

Figure 4.13: Use Available Technology

Source: Field Data (2019)

The Study findings indicated that, 36% of the respondents agreed as there was well use of the available technology as an approach used by bank, 26.1% mentioned neutral, 18.9% mentioned disagree, 13.5% mentioned strongly disagree, in the same way, 5.4% mentioned strongly agree on the use of technology as an approach used by bank to manage cash deposit.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study assessed the effect of liquidity risk management on financial performance of commercial banks in Tanzania. In the previous chapters, various elements on liquidity and risks management on financial performance of commercial banks in Tanzania were covered. Therefore, this chapter presents summary of the study, summary of the major findings, conclusion, and recommendations.

5.2 Summary of the Study

The study assessed the effect of liquidity risk management on financial performance of commercial banks in Tanzania. The study was guided by the following research objectives:

(i) To identify the factors influencing liquidity risks in the commercial banks in Tanzania.

(ii) To establish relationship between liquidity risk and financial performance in Tanzania.

(iii) To examine the approaches that the Banks use to manage cash deposit in Commercial banks Tanzania.

The literature review presented the concept of liquidity risks management on financial performance of commercial banks in Tanzania, the review of theoretical stances of the study, empirical studies, finally knowledge gap.

Mixed research approach was employed, in that regard, descriptive design was used. The study employed a sample size of 131 respondents then interview, questionnaires and documentary review as data collection techniques were employed. Since the approach of the study was mixed qualitative, then the thematic analysis was employed for qualitative data and SPSS was used for quantitative data analysis where both statistical and graphical techniques were employed.

5.3 Summary of the Major Findings

The findings are presented according to the research objectives and related questions which were asked to the respondents.

Firstly, the study findings revealed that there are various factors influencing liquidity risks in the commercial banks. Some includes: Capital adequacy in a Bank, high level of core capital, Liquidity Asset Ratio as well as Ownership and Bank Size.

Secondly the study findings revealed that, capital enable banks on credit, market and operational risks they are exposed to in order to absorb the potential loses and protect the bank's debtors. In the same line it was found that, though liquidity asset was seen significant in enabling bank performance however some respondents strongly disagreed on the liquidity asset ratio being influencer in bank performance since the bank found to fail in fulfilling its obligation in some of the area.

Thirdly, the study findings revealed that, there is weak relationship between liquidity risk and financial performance as it was found that liquidity risks like failure to

deliver quality services to its customers; late service delivery, network failure and the like are less connected to financial performances. In the same way, obligations of the bank to fulfill its tasks were reported to be low following the unstable national economy. However competition from other banks weakened the market of the bank.

Fourthly, the study findings revealed that, in order for the bank to sustain cash deposit and survival in the market monitoring cash flow is necessary since bank performance depends on the cash flow, in the same way, It was found that, apart from encouraging technology development but bank use the available technology to insure cash deposit. It was further noted that the use of E-system on bank performances enables the bank in its tasks performances. However majority of the respondents were on the views that the use of technology in the bank facilitated the tasks performances.

5.4 Conclusions

The study concluded that, liquidity risk management on financial performance of commercial banks in Tanzania had higher influence to the provision of quality services to the customers in the commercial banks. This is due to the fact that the liquidity are carefully managed to equip commercial banks with the factors necessary to manage the liquidity hence necessitate bank performance. In the same way, bankers and other stakeholders exercised poor supervision and monitoring of different activities and tasks performed by bankers as they did not encourage employee to make use of their obligation in enhancing commercial banks fulfill the tasks effectively and efficiently.

5.5 Recommendations

In the light of the study findings, discussion and conclusions. Recommendation for action and further research are given.

5.5.1 Recommendation for Action

(i) It is important that commercial banks maintain adequate capital reserves to ensure that they have the ability to fund their liabilities when they are expected to do so.

(ii) Investors and managers of commercial banks should incorporate liquidity risk in making investment decisions.

(iii) The regulators should enhance the requirements for capital adequacy, especially during periods of economic recess when banks' risk exposure is likely to increase.

(iv) Managers should also consider how the strategic and tactical decisions they make are likely to affect their banks' liquidity risk.

(v) Decisions that increase the liquidity risk should be avoided, since they will result in a decline in financial performance.

5.5.2 Recommendation for Further Research

(i) Based on the study findings, the following are definite potential areas that this study proposes for further research undertaking.

(ii) There is a need for a continuation of the same study to be conducted with a large sample including all commercial bank in Tanzania as an existing study cannot be conclusive.

(iii) Equally, the same study may be undertaken using different methodologies and different data collection tools in order to have further reliable findings to be generalized in Tanzania.

(iv) There is need to undertake a comparative study between commercial bank and other banks in Tanzania on the effect of liquidity risk management on financial performance as findings from the study could be productive to banks especially on the effect of liquidity risk management on financial performance.

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APPENDICES

Appendix I: Questionnaires

Dear respondent,

I am pleased to offer you this questionnaire designed to assess *the effect of liquidity risk management on financial performance of commercial banks in Tanzania. A Case of Commercial Bank of Africa, Dar Es Salaam headquarters.* Your answers will be kept strictly confidential. No information about you or your organization will be released to anyone except only report.

A. Personal Profile

1. Demographic information

Please select the response that best describes your answer

a) Which of the following age category are you?

- ☐ Below 25
- ☐ 26-36
- ☐ 37-47
- ☐ 48-58

b) Please indicate your gender

- ☐ Male
- ☐ Female

c) What is your education level?

1. Below Secondary education
2. Above secondary education
3. College/university

B: Research Questions

1. To identify the factors influencing liquidity risks in the commercial banks

1. What are the factors influencing liquidity risks in the commercial banks?

Kindly tick where necessary on the following major statement in the likert of 1= Strongly Agree, 2= Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree.

No	**Statement**	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disa**
1	High liquidity risk exposure of the bank influences its liquidity level					
2	Banks with different loans portfolios perform better financially and control liquidity risks					
3	Capital adequacy in a Bank is among the factors affecting bank liquidity level					
3	Banks with high level of core capital performs better financially					
4	Liquid Asset Ratio is important in influencing bank performance					
5	Ownership and Bank Size influence bank performance					
6	Customer financial deposits influence liquidity of the bank					

7	Non Performing Loans increase liquidity risks of the financial institution					
8	Inflation level and volatility influences the liquidity of the bank and its financial performance					
9	Internal control system influences bank performance and liquidity level					

2. <u>To establish relationship between liquidity risk and financial performance.</u>

2. What is the relationship between liquidity risk and financial performance?

   i. Very good ( )

   ii. Good ( )

   iii. Normal ( )

   iv. Bad ( )

   v. Very bad ( )

3. Over the past three years (2016-2018) can you give a brief relationship between bank liquidity risks on financial performance?

   …….

   …….

   …….

4. What is the liquidity level in the past three years and how did the liquidity affect banks Return on Assets?

   i. Very high level ( )

   ii. High level ( )

iii. Neutral ( )

iv. Low level ( )

v. Very low level ( )

3. To examine the approaches that the banks use to manage cash deposit

3. What are the approaches used in CBA to control cash deposit?

…….

……

……

6. What are the approaches used by banks to manage the cash deposit? Kindly tick where necessary on the following major statement in the likert of 1= Strongly Agree, 2= Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree.

No	**Statement**	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1	Monitoring cash flow					
2	Encourage faster payments					
3	Use Available Technology					

Thank you for your corporation